

Item no. 3046

No. to identify the observations received from the public No. 112982/25.08.2006

Proposal

AD ASTRA association requests the MEWM not to emit the environment permit for Roşia Montană project expressing the following remarks and comments:

- The study does not respond convincingly to the signals launched by academic community, non governmental organizations and mass-media in connection with the problems of economic efficiency, environmental protection, sustainable development and cultural heritage preservation
- RMGC ignores the tailings management facility lining
- The project contravenes to the EU Directive regarding the underground waters which stipulates zero emissions in the case of the cyanide
- The durable development is seriously challenged taking into account the limited duration (15 years) of intensive mining of an unique resource
- The project will affect gravely the cultural patrimony and archeological vestiges unique in Europe – Roman galleries will be destroyed

The position of those opposing groups mentioned by the questioner regarding the project date back to well before the project was redesigned to reflect concerns from stakeholder groups, including the academic community, non governmental organizations and mass-media in connection with the problems of economic efficiency, environmental protection, sustainable development and cultural heritage preservation related to the Roşia Montană Project (RMP), as well as, before the Environmental Impact Assessment study report (EIA) was submitted in May 2006.

Solution

The EIA that Roşia Montană Gold Corporation (RMGC) submitted responded fully and professionally to the Terms of Reference proposed by the Ministry of the Environment and Water Management (MEWM) and complied with the relevant legal provisions and international practices. More than 100 independent consultants, (certified) experts and specialists, renowned at the national, European, and even international levels, prepared the report. We are confident that the EIA provides sufficiently detailed information and reasoning for its conclusions to permit the MEWM to make its decision on the RMP. Subsequent to submission of the EIA, it has been reviewed by two different sets of experts. Technical experts, representing several international private sector banks and export credit agencies have concluded that the EIA complies with the Equator Principles designed to promote responsible lending by financial institutions to projects which raise environmental and social concerns, and an ad hoc committee of European experts (international Group of Independent Experts - IGIE) has publicly stated that the EIA was well-developed, taking into consideration their recommendations and suggestions. A copy of the IGIE report and RMGC's response is included as a reference document to the present annex of the EIA.

Before submission of the EIA, RMGC had previously changed various parts of the proposal, notably a reduction in the size of several proposed pits as well as enhancing sustainable development activities, and a stronger commitment to preservation of cultural patrimony including a reduced impact on local churches, in response to stakeholder consultations. Thus it is not true to suggest that RMGC has not responded to stakeholder or opposition views.

RMGC has engaged in a broad process of public consultation in compliance with Romanian and European law as part of the EIA process. The company has held 14 public meetings in Romania and two in Hungary. This is not a public relations campaign but rather an integral part of a serious process of public consultation before the project is approved. RMGC supports this process and believes it is important in a democratic society.

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An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be

protective of groundwater. Specifically, the Roșia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roșia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

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With respect to your comments made as regards a presumptive infringement of the provisions of Government Decision No.351/2005 ("GD 351/2005"), there are several aspects to be taken into consideration. Thus:

1. Firstly, please note that, according to the provisions of art. 6 of GD 351/2005, any activity that might determine the discharge of dangerous substances into the environment is subject to the prior approval of the water management authorities and shall comply with the provisions of the water permit issued in accordance with the relevant legislation.

The GD 351/2005 provides that the water permit shall be issued only after all technical-construction measures are implemented as prevent the indirect discharge of dangerous substances into the underground waters. The maximum discharge limits are expressly provided under GD 351/2005 and compliance with such is a condition for granting and maintaining the water permit.

In accordance with the provisions of GD 351/2005, the actual discharge limits should be authorized by the relevant authority, such process being understood by the lawmaker in consideration of the complexity and variety of industrial activities, as well as the latest technological achievements.

Therefore, please note that the EIA stage is not intended to be finalized into an overall comprehensive permit, but it represents only a part of a more complex permitting process. Please note that, according with art. 3 of GD 918/2002, the data's level of detail provided in the EIA is the one available in the feasibility stage of the project, obviously making impossible for both the titleholder and authority to exhaust all required technical data and permits granted.

The adequate protection of the ground water shall be ensured by the terms and conditions of the water permit. The issuance of the water permit shall be performed following an individual assessment of the project, considering its particular aspects and the relevant legal requirements applicable for mining activities. Until the water permit is obtained, any allegation regarding the infringement of GD 351/2005 is obviously premature mainly because the water permit shall regulate, in accordance with the relevant legal provisions, the conditions to be observed by the developer as regards the protection of the ground water;

2. Secondly, kindly note that the complexity and specificity of mining projects generated the need

of a particular legal framework. Therefore, for such projects, the reading of the legal provisions of a certain enactment should be corroborated with the relevant provisions of the other regulations applicable.

In this respect, please note that the understanding of GD 351/2005 must be corroborated with the provisions of the entire relevant legislation enforceable as regards Roşia Montană Project, with a particular accent to Directive 2006/21/EC on the management of waste from the extractive industries ("Directive 21").

The very scope of Directive 21 is to provide a specific legal framework for the extractive wastes and waste facilities related to mining projects, considering the complexity of such projects and the particular aspects of mining activities that can not always be subject to the common regulations on waste management and landfill.

From this perspective, Directive 21 provides that, an operator of a waste facility, as such is defined thereunder (please note that the TMF proposed by RMGC is considered a "waste facility" under Directive 21), must inter alia, ensure that:

- a) *"the waste facility is [...]designed so as to meet the necessary conditions for, in the short and long-term perspectives, preventing pollution of the soil, air, groundwater or surface water, taking into account especially Directives 76/464/EEC (1), 80/68/EEC (2) and 2000/60/EC, and ensuring efficient collection of contaminated water and leachate as and when required under the permit, and reducing erosion caused by water or wind as far as it is technically possible and economically viable;"*
- b) *"the waste facility is suitably constructed, managed and maintained to ensure its physical stability and to prevent pollution or contamination of soil, air, surface water or groundwater in the short and long-term perspectives as well as to minimize as far as possible damage to landscape;"*

In addition, it should be mentioned that RMGC was required by MWEM under the Terms of Reference, to perform the EIA considering the provisions of Directive 21 and the BAT Management of Mining Waste. The Directive 21 was intended by the EU DG of Environment to be the legislative regime applicable to sound management of mining waste throughout Europe and therefore compliance with its provisions is mandatory.

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We disagree with your statement about the limited duration of 15 years, the Roşia Montană Project (RMP) will develop for at least 20 years.

A starting premise to this context is that RMGC is committed to ensuring that the Roşia Montană Project (RMP) will be a catalyst for local and regional economic development. It is recognised that, as with any major industrial development, impacts will be positive and negative. RMGC commits to work alone and in partnership to ensure that beneficial impacts will be maximised. RMGC will priorities a participatory approach wherever possible and will seek guidance from local and regional authorities and from the community when deciding on issues that may impact the area's development. Negative impacts will be mitigated through measures as described in the EIA report.

RMGC recognizes that in order to ensure it meets its sustainable development commitments it must support, as a minimum, five key interrelated areas that make up the three traditional pillars of sustainable development - social, environmental and economic. These areas are presented below as five capitals of sustainable development.

RMGC has developed its Sustainable Development Policy [1] in support of this and this is presented further on in this annex. Supporting elements are also presented, as are a set of Authority, Community, and Company initiatives within the Roşia Montană Sustainable Development Partnerships and Programs.

1. Five Capitals of Sustainable Development

Financial Capital

Economic Development Impact, fiscal management, taxes

- Average of 1200 jobs during construction over 2 years, the majority of which sourced locally
- 634 jobs during operations (direct employment including contracted employment for cleaning,

- security, transportation, and other), for 16 years, most of which sourced locally
- Some 6000 indirect jobs for 20 years, locally & regionally [2]
- US\$ 1 billion in profit share, profit tax, royalties and other taxes and fees to Romanian local, regional & national government
- US\$ 1.5 billion procuring goods & services. US\$ 400 million during construction (2 years) and US\$ 1.1 billion during production, from Romania (16 years)

To further promote and develop the economic opportunities presented by the RMP, RMGC is also cooperating with local stakeholders regarding setting up their own businesses:

- The set up of a micro-credit finance facility in the area to allow access to affordable financing
- The set up of a business centre and incubator units, offering mentoring, training (entrepreneurial, business plans, fiscal & administrative management, etc), legal, financial & administrative advice to promote local & regional business development both to service the RMP but also to encourage entrepreneurship in preparation of the post-mining sustainable development needs,

Physical Capital

Infrastructure – including buildings, energy, transport, water and waste management facilities

- Increases in revenue to government agencies, of the order of US\$ 1 billion over 20 years (construction + production + closure) will result in additional money the government may allocate to improving community infrastructure
- RMGC will also develop the resettlement sites of Piatra Albă and Dealul Furcilor in Alba Iulia. Piatra Albă will contain a new civic centre, commercial and residential areas. These will be transferred to the local authorities once complete. The RRAP contains full details of these initiatives

Human Capital

Health and education

- A private dispensary & health clinic in Piatra Albă (see RRAP), accessible to wider community through health insurance
- Upgrading of a wing of Abrud hospital, accessible to the wider community through the national Romanian health system
- Improvement of mobile emergency medical system in the area
- The building of a new school, residential & civic centre in Piatra Albă. This is fully described in the RRAP
- Health awareness campaigns (in partnership with local authorities & NGOs) covering: reproductive health, diet, and lifestyle amongst others
- Partnerships with education providers & NGOs concerning access to & improvement of education facilities in the area, e.g.: the NGO and local authorities lead CERT Educational Partnership (www.certapuseni.ro).

Social Capital

Skills training, community relationships and social networks and the institutional capacity to support them, preservation of cultural patrimony

- Efforts to develop and promote Roşia Montană's cultural heritage for both locals and tourism – RMGC is a partner in the Roşia Montană Cultural Heritage Partnership (info@rmchp.ro)
- Providing adult education opportunities and skills enhancement including training programs, funds and scholarships, to increase employment chances both direct with RMGC and indirect – RMGC is a partner in the Roşia Montană Professional and Vocational Program (info@rmpvtp.ro)
- Programs assisting vulnerable people & groups, and to consolidate social networks particularly in Roşia Montană – RMGC is a partner in the Roşia Montană Good Neighbour Program lead by local NGO ProRoşia (info@rmgnp.ro)
- RMGC supports a NGO-lead partnership working with the youth in the area to improve and increase the capacity of the community (www.certapuseni.ro).

Natural Capital

Landscape, biodiversity, water quality, ecosystems

- Measures contained in the RMP management plans and SOPs will result in mitigation of environmental impacts and conditions as identified in the EIA.

- The improved environmental condition will enhance the quality of life in Roşia Montană.
- Training & assistance in integrating environmental considerations into business plans.
- Awareness-building regarding positive environmental performance of business activities.
- Environmental standards associated with loans through the micro-credit finance facility including monitoring of environmental performance.
- Business Code of Conduct requiring suppliers to RMP to comply with RMGC's environmental performance standards.

RMGC's view of the social and economic benefits of the RMP is described in the Community Sustainable Development Plan and EIA Chapter 4.8 – the Social and Economic Environment.

In order to achieve its commitments, RMGC acknowledges that it needs to collaborate with the Community, Authorities and civil society on issues that impact the area's development. This approach allows the Community to own, direct and control all relevant development issues in a multi-stakeholder and integrated manner.

In the spirit of that commitment, to date, RMGC has conducted extensive consultations, including 1262 individual meetings and interviews, and the distribution of questionnaires for which over 500 responses have been received, 18 focal group meetings, and 65 public debates, in addition to holding discussions with government authorities, non-governmental organisations and potentially affected stakeholders. Feedback has been used in the preparation of the Management Plans of the RMP's Environmental Impact Assessment (EIA) as well as the drafting of the Annex to the EIA.

Support of the area's sustainable development will be conducted within the framework of Partnership as promoted by organisations such as the United Nations Development Program (UNDP). For example, future socio-economic impacts mitigation and enhancement measures will be conducted under the guidance of the Roşia Montană Socio-Economic Research Centre (info@rmserc.ro), which in turn is partnered with the local authorities. This will allow a transparent evaluation of the effectiveness of sustainable development support and will provide a forum to implement necessary improvements.

Other sustainable development support partnerships are presented under the section entitled Roşia Montană Sustainable Development Programs and Partnerships further in this annex (www.rmsdpps.ro).

Beyond immediate direct and indirect benefits, the presence of the RMP as a major investment improves the area's economic climate, that will in turn encourage the development of non-mining activities. It is expected that the improved investment and economic climate will lead to business opportunities that can develop concurrent with the RMP, even as they extend well beyond economic activities related directly to mining operations. This diversification of economic development is a critical benefit of the investments generated to realise the RMP.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

References:

[1] This is an updated version of the policy already presented in the EIA management plans – it has been improved following feedback during public consultation.

[2] Economists have argued that the multiplier effect for the RMP is in the order of 1 Direct job to 30 Indirect Full Time Job Equivalents over twenty years – the methodology used may be available via a direct request to RMGC. However, the more conservative 1 : 10 Direct : Indirect figure is used here to maintain consistency with internationally accepted multiplier effects for large mining projects in impoverished regions, such as mentioned in UNCTAD (2006) Commodity policies for development: a new framework for the fight against poverty. TD/B/COM.1/75, Geneva, Switzerland. From experience, this is also the number most often quoted in Canada.

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As experts' reports and publications demonstrate, the Roman galleries from Roşia Montană are important but not unique. Therefore an inventory of the ancient mining sites from the territory of Transylvania and Banat – prepared in the framework of the development of the Environmental Impact Assessment Study

for the Roşia Montană Project – supports the statement that the Roşia Montană site cannot be considered unique, at least out of the history of the roman mining operations within the Empire and in the province of Dacia in particular. There are at least 20 sites having almost similar characteristics – out of which some like Ruda Brad, Bucium – the area of Vulcoi Corabia and Haneş – Almaşul Mare, have already offered concrete data on a archaeological potential that may be comparable to the ancient *Alburnus Maior* – all these contradict the idea of declaring this site unique.

Roman galleries at Roşia Montană haven't been researched by experts in the field of mining archaeology until 1999 even if their existence had been known for more than 150 years. In fact, before 2000 these kind of archaeological vestiges have been scientifically unknown, the references in connection with these being in most of the times empirical. Neither the surface archaeological remains were better known prior to 2000. No archaeological researches were carried out here in the true sense of the word, but only information originating from chance finds occasioned by agricultural or construction activities.

Archaeological mining researches that have been developed - starting with 1999 and up to now – by an expert multidisciplinary team from the University of Toulouse Le Mirail (France) coordinated by Beatrice Cauuet PhD have considered – for the first time in Romania – a detailed study on this kind of archaeological vestiges, namely ancient mining galleries, of ancient ages and not only. Ample researches and patrimony studies have been developed between 2000 and 2006 and have allowed to outline a comprehensive image of these values belonging to national cultural heritage, as well as the implementation of several specific measures with regard to their protection.

Therefore, the study of these structures has represented their better insight and has also entailed making some relevant decisions with respect to their conservation and development. Based on the results of the researches that have been developed until now (concluded for Cetate, Carnic Jig Massifs and in development for Orlea Massif) it has been decided to conserve and develop the following areas hosting ancient mining works:

- the Cătălina Monuleşti gallery - a gallery that is situated in the Historic Centre of Roşia Montană village, where the most significant set of wax coated tablets has been discovered together with an ancient drainage system for mine waters;
- the Păru Carpeni mining area – situated in the south-eastern area of Orlea Massif where it has been discovered a system of superposed chambers having Roman wooden installations (wheels, channels etc.) for drainage;
- the area Piatra Corbului – is situated in the south-western part of the Cărnic Massif; here have been kept traces of mining operations that have been developed using fire and water from the ancient and medieval ages;
- the area of Văidoaia Massif – in the north-western part of the Roşia Montană village, where open pit mining areas are preserved even since the ancient era;

The preventive archaeological researches developed during 2001-2006, have outlined and investigated 13 sites; for some of these – after the end of exhaustive researches – the decision to implement the archaeological discharge procedure has been made, and in other cases the in situ conservation has been agreed upon – the funerary monument at Tăul Găuri, the roman vestiges from the Carpeni hill; the Orlea area is going to be minutely researched during 2007-2012.

Ample reopening, consolidation and development works have been provided for the historic mining galleries dating from Roman times and which have been discovered within the mining areas of Cătălina Monuleşti and Păru Carpeni. These works would allow their conservation in situ and the development of a circuit for public access. This decision has taken into consideration the value and the importance of exceptional archaeological vestiges conserved within these galleries, namely Roman wooden installations, developed during Roman times for discharging the mine waters (the so called “roman wheels”). Meanwhile, the gallery Cătălina Monuleşti is known as the one where - during the middle of the 19th century – it has been discovered the most important set of wax coated tablets (according to historic sources, out of a total of 32 known artefacts, 11 items have been found).

Most of the ancient mining works from Cărnic Massif, but also from other mining areas, are being accessible, under very difficult conditions, only to experts and are actually inaccessible for public. Moreover, the safety norms governing the development of certain similar activities in the museums from European Union and which are also going to become letter of the law in Romania are not compatible with

the integral transformation of the Roman galleries, which are permanently exposed to elevated risk factors, in a space for tourists. We mention that there will be segments of Roman galleries which will be preserved *in situ*. Besides complete research and conservation, the experts have considered that the development of a three-dimensional model of these structures, as well as establishing 1:1 replicas in the framework of the future mining museum which is going to be built very soon at Roşia Montană.

As an alternative, the elaboration of a specialty study was taken into account in order to evaluate the costs needed for the integral preservation and introduction into the tourism circuit of the galleries situated in Cărnic massif. Thus, the necessary investments in order to arrange and maintain the public tourism in this massif rise at an amount unjustified from economic point of view (see the informative brochure entitled *Costs Estimate for the Development of Ancient Mining Networks from Cărnic* elaborated by British companies Gifford, Geo-Design and Forkers Ltd).

As far as the area of the Orlea Massif is concerned (the only area where ancient mining vestiges are being classified, namely cf. LMI 2004 Roman mining operations from Alburnus Maior, Orlea area (cod LMI AB-I-m-A-00065.02) the researches developed up to the present have had preliminary character. The detail research of this area is planned for the period 2007-2012, and –according to the legislation in force– measures can be undertaken –after completing these researches – either *in situ* conservation of certain sections, or the archaeological discharge procedure is going to be put into practice for some of them. Detail information on the random archaeological discoveries and on preliminary archaeological researches (at surface and underground) from the area of Orlea Massif have been published in the Environmental Impact Assessment Study for the Roşia Montană Project, volume 6 – Cultural Heritage Baseline Conditions, Annex I, page 219-222. We mention that the following explanatory note is stated: “Site development plans for the Project will not result in impacts or construction activities in the Orlea area, which will be investigated starting 2007. As a result, construction activities will not begin in these areas until proper archaeological investigation consistent with Romanian law and international best practice is concluded.”(Cultural Heritage Baseline Conditions, volume 6, page 46).

Within the Orlea Massif from Roşia Montană, a Mining Museum was established in 1980. In this mining perimeter a series of well preserved galleries were arranged and separated by concrete walls towards the mining works which assured the access. The Orlea galleries have a characteristic trapezoidal profile, similarly with the mining works from Cărnic and other mining sector from Roşia Montană. Also, these ancient works suffered in time successive “reshaping”, respectively the taking again having in regard the mining of new ore reserves. These mining works destroyed parts from these ancient remains. Moreover, their preservation state falls into disrepair due to the recent mining works which used drilling – blasting technology, a fact leading to the rock destabilization and destroying of the underground mining remains. The removal of the rockfill from the ancient mining works during the mining archaeological investigations represents another factor contributing to the degradation of the ancient mining works. The degradation of the preservation condition of the mining remains of all ages is accelerated also by the closure of the mining operation managed by Minvest (June 01 2006), which assured, at a minimum level, the global drainage of the system of galleries of the Roşia Montană mine. The closure of a mining activity, according to the national norms in force, implies an extremely wide range of preservation measures, but at Roşia Montană the extractive activity purely and simply was stopped, the mine being abandoned. After few months from abandon, the main gallery of the mine water drainage, namely the Sf. Cruce from Orlea gallery is in a critic condition. In fact, the mine water silted the drainage ways longer than several kilometers. In the case when this mining heritage will be only “frozen” without to take maintenance measures, having in regard their preservation for the next generations, the result will be disastrous. All still existing remains will disappear due to the underground falling and flood. An edifying example consists – unfortunately – from the “Roman steps” from Brad (Roman remains also listed by Law 5/2000) where these became inaccessible when the maintenance works ceased.

Taking in to account the importance of the cultural heritage from Roşia Montană and the applicable legal provisions, SC Roşia Montană Gold Corporation SA has funded between 2001-2006 a budget of more than US\$ 10 million for the research of the heritage. Moreover, considering the results of the researches, the experts opinions and the decisions formulated by relevant authorities, during the next years, the company is about to allocate a budget of US\$25 million for the research, conservation and restoration of the Roşia Montană cultural heritage, provided that the mining project is implemented; as it has been made public in the Environmental Impact Assessment Study in May 2006 (see the Report on Environmental Impact Assessment Study, volume 32, Management Plan for Archaeological Heritage from Roşia Montană

area, page 78-79). Therefore, it is taken into account the continuation of the researches in the Orlea area, but especially the creation of a **Modern Mining Museum** with **geology, archaeology, industrial and ethnographic heritage exhibitions**, as well as setting up tourists' access in the Cătălina-Monulești gallery and at the monument from Tău Găuri as well as **the conservation and restoration of those 41 historic monument buildings and of the protected area Roșia Montană Historic Centre**.

In order to get some information on the historic of the researches and of the main discoveries related to historic galleries at Roșia Montană, as well as to get to know the conclusions of the experts regarding this issue, and also the assessments for a tourist route dedicated to historic mining structures from the Cărnic Massif or the opinions formulated in 2004 by Edward O'Hara – rapporteur for heritage issues within the Parliamentary Assembly of Europe Council; we ask you to read the annexes entitled “Information on the Cultural Heritage of Roșia Montană and Related Management Aspects” and “Costs Estimate for the Development of Ancient Mining Networks from Cărnic”, as well as the annexed version in Romanian language of the O'Hara report. Detail information regarding the complex issue of the study on ancient mining activities from Roșia Montană, of the results of these researches and their development perspectives, they are all available in the Environmental Impact Assessment Study for the Roșia Montană Project, volume 6 – Baseline conditions page 26, 32-53, 79-105.

In conclusion, we want to underline the fact that the destruction of archaeological vestiges from Roșia Montană is out of the question. This kind of research – known under the title of preventive/rescue archaeological research – is made, however, all around the world, together with the economic interest for certain areas, and its costs, as the costs for the development and maintenance of the preserved areas, are guaranteed by those who are making the investment. Therefore, a public-private partnership is going to be developed for the protection of the cultural heritage, in compliance with the provisions of the European Convention from Malta (1992) on the protection of archaeological heritage [1].

It is worth stressing that, apart from the obligations RMGC has committed to in protecting and preserving archeological remains and historic monuments, there are a number of obligations that relate to both the local government authorities in Roșia Montană and Alba County and to the central government authorities, i.e. the Romanian State. The Cultural Heritage Management Plans included in the EIA Study Report provide clarification of such aspects (see EIA Report, vol. 32, Management Plan for the Archeological Heritage at Roșia Montană p. 22-24, 49, 55-56, 71-72 and EIA Report, vol. 33, Management Plan for the Historic Monuments and Protected Areas at Roșia Montană p. 28-29, 47-50, 51-53, 65-66, p. 103 – Annex 1).

All these publicly assumed commitments of the Company are described in detail in the EIA Report, vol. 33 Cultural Heritage Management Plan.

[1]You can find the text of the Convention at: <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=8&DF=7/6/2006&CL=ENG>

Item no.	3047	Same as: 3048, 3049, 3050, 3051, 3052, 3053, 3054, 3055, 3056, 3057, 3058, 3059, 3060, 3061, 3062
No. to identify the observations received from the public	No. 111713/25.08.2006	Same as: No. 111714/25.08.2006, No. 111715/25.08.2006, No. 111716/25.08.2006, No. 111717/25.08.2006, No. 111718/25.08.2006, No. 111719/25.08.2006, No. 111720/25.08.2006, No. 111721/25.08.2006, No. 111722/25.08.2006, No. 111723/25.08.2006, No. 111724/25.08.2006, No. 111725/25.08.2006, No. 111726/25.08.2006, No. 111727/25.08.2006, No. 111728/25.08.2006
Proposal		<p>The questioner does not agree to the promotion of the Roşia Montană Project, making the following comments:</p> <ul style="list-style-type: none"> - In EIA there are no presented all the possible risks derived from this project; - Total costs for closing the mine are unrealistic; - There isn't until now an approved Zonal Urbanism Plan for the Protected Areas; - The phase of public consultation and quality evaluation of the impact assessment study report begun without a valid urbanism certificate; - Information about the foundation which RMGC will establish and subsidize is not given. This foundation follows to assume the obligations which the mining operation can not assume; - The present urbanism plans of the Rosia Montana commune do not correspond with the mining project proposal described in EIA; - There is no liner proposed for the tailings pond; - The proposed waste deposits will be not constructed according to the legislation in force; - No financial guarantees have been stipulated; - There is not a Safety Report submitted for the public consultation and evaluation by the competent authorities; - The EIA report does not assess the "zero alternative"; - The Project poses a threat for protected flora and fauna; - The EIA report does not refer to the impact on the listed heritage buildings of noise and vibrations caused by the mining operations; - The public/ONGs wish to consult the contracts and agreements between Company and Romanian State; - The Urbanism Plan has been modified without public consultation; - From archeological point of view, the area proposed to be occupied by project was not legally investigated; - The questioner contests the protection of the architectural and spiritual monuments with the responsibility of the state institutions for the protection operation. <p>SEE THE CONTENT OF THE TYPE 1 CONTESTATION</p>
Solution		<p>It is the nature of risk that it can be mitigated and diminished; it cannot be made to disappear. In order to put this into context, the common action of walking on the street or developing everyday activities have an accident potential. This accident potential is twice higher than within the framework of industrial activities that use hazardous substances.</p> <p>A major chapter of the EIA report was dedicated to the identification of risks for the project. In addition, this chapter provides a discussion of the mitigation measures for each risk and how they were incorporated into the project designs. It is recognized that risk identification is difficult due to the number and diversity of events that can be envisioned. The EIA report cannot assume to cover all of the potential risks associated with the project. However, it has attempted to identify and address the most relevant risks. The extent of risk assessment and the intensity of the prevention and mitigation measures should be proportional to the risk involved and therefore only the risks that have been considered important have been assessed in detail. Each is described below.</p> <p>In the larger sense, the entire EIA report is focused on the assessment of impacts and their associated mitigation. Specifically, Chapter 4 of the EIA presents that impact assessment of the project. The following discussion presents a summary of the impact discussed in the EIA.</p> <p>As far as natural and technological risks assessments are concerned, Chapter 7, "Risk Cases", from the Report on Environmental Impact Assessment, emphasizes the fact that safety and prevention measures,</p>

the implementation of the environmental management and risk systems are mitigating the consequences to acceptable levels as compared to the most restrictive norms, standards, the best practices or national and international recommendations in the field. The risk level has been established as moderate and so, socially acceptable. The extension of the risk assessment and the intensity of the prevention and mitigation measures of the consequences should be proportionate to the risk involved. Selection of a specific mitigation technique is depends on the analyzed accident scenario.

More detailed assessments are conducted for accident scenarios that, based on the qualitative assessment are found to be potentially major, of probability more than 10^{-6} (reduced recovery periods of 1/1,000,000) meaning that they could have major consequences therefore, elevated associated risk, a higher risk level than 9 to 12 (on a scale of 1-25). To put this in context, simply living in southern Florida rates a 25 on the risk scale.

A global assessment of the risks associated with the Roşia Montană Project is obtained by the quick environmental and health risk assessment methodology initially developed by the Italian Ministry of the Environment and the World Health Organization. Natural hazard and risk identification and analysis presents key data and information in assessing potential technological accidents. Thus:

- In designing the Tailings Management Facility, the design parameters were chosen to fully cover the characteristic seismic risk of the area. These seismic design parameters adopted for the TMF and other facilities on the proposed site result in a safety factor much greater than the minimum accepted under the Romanian and European design standards for such facilities;

- in the sector physically impacted by the Project, the risk of floods will remain very low due to the small catchments (controlled by the Roşia and Corna Streams) the area affected by the operation, and the creation of containment, diversion and drainage hydro-technical structures for storm waters on the site, and in the Abrud catchment in general;

- risks caused by meteorological events have been reviewed and used in assessing the hazards of the affected technological processes.

From the analysis of morphometrical parameters and their correlation with other sets of information on the natural slopes on and near the site shows that the (qualitatively estimated) landslide occurrence risk is low to moderate and its consequences will not cause major impacts on the structural components of the Project.

There is no significant risk associated with resource depletion. Mining activities are planned judiciously, so as to extract only the profitable gold and silver resources and only the necessary construction rock for the Project. The management of the mining concession site will minimize reserve "sterilization" (limitation of future access to the reserves).

In assessing technological hazards and risks, the quantity of hazardous substances on the site was calculated as a total and by category, as provided by the *Notification Procedure* approved by Ministry of Agriculture, Forestry, Water and Environment (MAFWE) Order 1084/2003. Based on an evaluation of hazardous substances in stock on the Project site in relation to the relevant quantities provided by the Government Decision 95/2003 which transposes the Seveso Directive, the Project ranges between the upper and the lower limits, and therefore S.C. Roşia Montană Gold Corporation S.A. is required to prepare a Report on Environmental Impact Assessment Study to be sent to the local environmental authority and the local civilian protection authority a *Safety Report* on its operations to prevent major accident risks.

In assessing the consequences of major accidents involving dangerous substances, physical-mathematical models accepted internationally and especially at EU level, and the current version of the SLAB (Canada) software have been used, the latter for the atmospheric dispersion of denser than air gases, that may handle a multitude of situations and scenarios. Similarly, the EFFECTSGis 5.5 (Netherlands) software, developed for the analysis of the effects of industrial accidents and of consequences. Several scenarios were considered in response to the internal legislative requirements, especially related to the implementation of the Internal Emergency Plans (GD 647/2005). The conclusions of the risk assessment for major accidents were:

- The total destruction of plant facilities may only be caused by terrorist attack with classic or nuclear weapons. Simultaneous damage to the HCl tank (including containment) and to the NaCN solution tank, the tanks containing enriched solution, to one or more leaching tanks, having as a result HCN dispersion into the air. At the same time, under certain situations and weather conditions

unfavorable for dispersion, people within 40 m of the emission source, surprised by the toxic cloud for more than 1 minute without respiratory protection equipment, will most certainly die. It may also be considered that, on a radius of about 310 m, persons exposed for more than 10 minutes may suffer serious intoxications that may also lead to death. Toxic effects may occur in persons up to about 2 km downwind of the process plant;

- Operating errors and/or failures in the measurement and control devices, resulting in a lower pH in the leaching tank, thickener and/or DETOX slurry and accidental emissions of hydrocyanic acid. The area affected by concentrations of 290 ppm over a 10 min exposure time is within a circle of 36 m radius and the 50 ppm IDLH threshold for 30 min exposure will be reached over an area of 157.5 m radius. The center of these circles is the middle of the CIL tanks platform;

- Accidental HCN emission from the decanter. The accident may be caused by a drop of pH in the CIL tanks combined with an overdose of flocculent solution and faulty pH monitoring systems. The area affected by concentrations of 300 ppm over a 10 min exposure time is within a circle of 65 m radius and the 50 ppm IDLH threshold for 30 min exposure will be reached over an area of 104 m radius. The center of these circles is mid-distance between the two DETOX facilities;

- Accidental HCN emission from the DETOX facility. The accident may be caused by a drop of pH in the reactors generated by an overdose of metabisulfite solution and/or copper sulphate combined with faulty pH monitoring systems. The area affected by high 1900 ppm concentrations for a 1 min exposure time is located within a 10 m radius circle. The area affected by concentrations of 300 ppm over a 10 min exposure time is within a circle of 27 m radius and the 50 ppm IDLH threshold for 30 min exposure will be reached over an area of 33 m radius. The center of these circles is mid-distance between the two DETOX facilities;

- Explosion of the LPG storage tank. The LPG storage tank has a 50 ton capacity and is located outdoors, near the heating plant. The simulation was conducted for the worst case scenario, considering an explosion of the full tank. Threshold I with heat 12.5 kW/m² is within a 10.5 m radius circle and Threshold II, of heat radiation 5 kW/m² is within a circle of 15 m radius;

- Damage and/or fire at the fuel tanks. Simulations were conducted for the worst case scenarios, considering ignition and combustion of all the diesel (fire in the tank, or in the containment vat, when full of diesel);

- Corna Dam break and breach development. Two credible accident scenarios were considered in simulating tailings flow out of the Tailings Management Facility, and six credible scenarios for the flow of decant water and tailings pore water, with significant effects on the terrestrial and aquatic ecosystems, in different weather conditions;

- Tailings flow may occur along Corna Valley, on a 800 m (starter dam break) or over 1600 m reach should the Corna dam break in its final stage;

- In regard to water quality impacts, cyanide concentrations in the water in the shape of a pollution plume may reach Arad, near the Romanian-Hungarian border on the Mureş River, in concentrations ranging between 0.03 and 0.5 mg/L. Due to inherent mathematical limitations in the models, these values and the accident effects are considered overestimated. Therefore, the results describe the "worst case scenario" based on extreme dam break assumptions for the Corna Dam.

A new and much more precise and realistic simulation has been subsequently established based on the INCA Mine model, that considers the dispersion, volatilization and breakdown of cyanides during the downstream movement of the pollutant flow (Whiteland et al., 2006).

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modeling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physical-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU BAT-compliant technology

adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modeling work is presented under the title of the Mureş River Modeling Program and the full modeling report is presented in Annex 5.1:

- Development of HCN on the tailings pond surface. Simulated emissions of HCN from the Tailings Management Facility pond surface and of their dispersion into the ambient air show that the level of $400\mu\text{ g/m}^3$ hourly average and $179\mu\text{ g/m}^3$ 8hr average will not be exceeded. These HCN concentrations are only slightly over the odor threshold (0.17ppm) and much below potentially dangerous concentrations;

- Cetate Dam break and breach development. Flood modeling was in case of a break in Cetate dam was based on the design parameters obtained from the hydrometeorological study "Assessment of rainfall intensity, frequency and runoff for the Roşia Montană Project - Radu Drobot". The breach characteristics were predicted using the BREACH model, and the maximum height of the flood wave in various flow sections was modeled using the FLDWAV software. The assumptions included a total 800000 m^3 discharge for one hour, when the peak of the flood hydrograph is about 4.9 m above base flow immediately below the dam and in the narrow Abrud valley 5.9-7,5 km downstream of the dam, while in the last section considered (10,5 km) water depth is about 2.3 m above base flow and the maximum flow rate 877 m^3/s . Further, the broader Aries valley allows the flood wave to propagate on a significantly wider bed, which results in a highly attenuated hydrograph. These results describe the "worst case scenario" based on extreme dam break assumptions:

- Accidents during cyanide transportation. Due to the large quantities of cyanide transported (about 30t /day) the risks associated to this activity were assessed in detail using the ZHA- Zurich Hazard Analysis method. As a consequence, the optimum transport route was selected from the manufacturer to the Process Plant, e.g.;

- Cyanide transport (in solid state) will exclusively involve special SLS (Solid to Liquid System) containers, 16 tons each. The ISO compliant container will be protected by a framework with legs, which allows separation from the transport trailer for temporary storage. The wall is 5.17 mm thick, which, together with the protective framework, provides additional protection to the load in case of accident. This system is considered BAT and is currently one of the safest cyanide transportation options.

It is being mentioned the fact that the study develops the occurrence possibility of these scenarios (pages 166-171, Conclusions).

As regards the cyanides management, there is a baseline study named "Roşia Montană Golden Project, Cyanides Management Plan" prepared in compliance with the "International Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (International Cyanide management Institute) May 2002". S.C. Roşia Montană Gold Corporation is signatory to this code.

Bibliographical references for Chapter 7 "Risk Cases" are listed at page 173-176.

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RMGC's closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like. They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA's Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best

practice, best available technology (BAT) and compliance with all Romanian and European Union laws and regulations.

Closure and rehabilitation at Roşia Montană involves the following measures:

- Covering and vegetating the waste dumps as far as they are not backfilled into the open pits;
- Backfilling the open pits, except Cetate pit, which will be flooded to form a lake;
- Covering and vegetating the tailings pond and its dam areas;
- Dismantling of disused production facilities and revegetation of the cleaned-up areas;
- Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment;
- Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached.

While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense—that incurred by the earthmoving operation required to reshape the landscape—can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful re-vegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.

Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production.

We believe that—far from being too low—our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world's largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

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According to Law 5/2000, regarding the approval of the Territory Arrangement Plan – 3rd Section – protected areas (“Law 5/2000”) (article 5, paragraphs 2-3), local public authorities, with the support of the competent central public authorities, had the obligation to establish the boundaries of the protection areas for the cultural heritage elements stipulated in Annex III to the above-mentioned law. This measure should have been taken within 12 months from the effective date of Law 5/2000, based on specialized studies. For this purpose, the local public authorities had to prepare the town planning documentation and its related regulations, developed and approved according to the law. This documentation must comprise the necessary protection and conservation measures for the national cultural heritage elements located in this area.

Concurrently, Law 350/2001 on the territory arrangement and urbanism stipulates the right of legal or natural persons interested in arranging the territory, to initiate the development of urbanism plans.

In accordance with these legal provisions, in 2001, RMGC initiated the preparation of these specific town-planning documentations - the General Urbanism Plan and the Zonal Urbanism Plan. These plans have been developed by Romanian certified companies and followed the legal approval procedure. The permit for the establishment of the Roşia Montană Historical Centre Protected Area was issued by the Ministry of Culture and Religious Affairs in 2002 (permits no. 61/14.02.2002 and no. 178/20.06.2002) as part of the procedure for the approval of the town planning documentation. Based on these permits, the Ministry of Culture and Religious Affairs requested the company to develop a Zonal Urbanism Plan for the Historical Centre of Roşia Montană. Out of the 41 historical buildings in Roşia Montană, thirty-five (35) are located inside the protected area of the Roşia Montană Historical Centre.

As for the heritage elements located in the future industrial development area (6 historical buildings), these are discussed in the Industrial Zonal Urbanism Plan prepared by SC Proiect Alba SA. The regulations included in this document will contain measures for the protection of these monuments.

In conclusion, the town planning studies and the specialized studies conducted for the purpose of establishing the boundaries of the protection areas within the future mining operations perimeter are currently pending approval, in accordance with the legal provisions, by the competent institutions and committees. Please note that none of the historical houses located in the perimeter of the proposed project will be affected; on the contrary, all the 41 historic buildings will be included in a complex restoration and rehabilitation program (see the Management Plan). This program is mandatory, regardless of the implementation of the mining project, if we want to prevent these buildings from collapsing because of their advanced degradation.

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Your assertion regarding the failure to obtain an applicable urbanism certificate at the start up of the public debates and of the evaluation of the quality of the report to the environmental impact assessment, is not correct.

Thus, by the time when the public debate stage started up there was an applicable urbanism certificate and namely the urbanism certificate no. 78/26.04.2006 issued by Alba County Council. This certificate was obtained prior to the evaluation stage of the quality of the report to the environmental impact assessment which started up once the EIA was submitted to the Ministry of Environment and Water Management on the 15th May 2006.

For better understanding the applicable legal provisions and the facts developed within the mining project of Roşia Montană zone we would like to make several comments:

- The procedure for issuing the environmental permit for Roşia Montană project started up on the 14th December 2004 by submitting the technical memorandum and the urbanism certificate no.68/26.August 2004 (certificate applicable by that time). S.C. Roşia Montană Gold Corporation S.A. (RMGC) applied for and obtained a new urbanism certificate no.78/26.04.2006 issued by Alba County Council for the entire Roşia Montană Project applicable on the date of the EIA Report submission (15th May 2006) and prior to the public debate start up (June 2006);
- The Section 1 of the urbanism certificate no.78 of 26th 04.2006 entitled Work construction, position 10 – “Processing plant and associated constructions “ – including the tailing management facility which existence is compulsory for the processing plant running. The Tailing management facility is also specified on the layout plans which are integral part of the urbanism certificate and they were sealed by Alba County Council so that they cannot be modified;
- The Urbanism Certificate is an informative document and its goal is only to inform the applicant about the legal, economic and technical regime of the existing lands and buildings and to establish the urbanism requirements and the approvals necessary to obtain the construction permit (including the environmental permit) as per art.6 of Law 50/1991 referring to the completion of construction works, republished and art 27 paragraph 2 of the Norms for the application of Law 50/1991 – Official Journal 825 bis/13.09.2005).

As it is an informative document, it does not limit the number of certificates an applicant may obtain for the same land plot (art. 30 of Law no. 350/2001 regarding the territorial planning and urbanism).

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Introduced as part of the Environmental Impact Assessment Report Study (EIA), the Roşia Montană Foundation is shifting in focus. The Community Sustainable Development Plan activities initially conceived as coming under the Foundation umbrella (business oriented activities: business incubator, business advisory center, micro-finance facility, as well as social oriented activities: education and training center) have been advanced independently, via partnerships and with community participation in decision-making – a preferable way to advance social and economic development programs.

Going forward, the Foundation will take shape around preservation, patrimony and cultural heritage

issues, with its final form determined in consultation with the community.

In terms of the philosophy that guides the company's Sustainable Development efforts, the Roşia Montană Gold Corporation (RMGC) sees itself not as principal provider, but as a partner. Community involvement is considered the starting point; over time, as the community builds the capacity to maintain programs in its own right, the company will turn over control of currently-established programs to the community and its institutions.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

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We underline the fact that your statement is false. The General Urbanism Plan for the Roşia Montană commune, endorsed in 2002 allows the development of Roşia Montană project, as it has been presented during the public consultations.

Concurrently, pursuant to the provisions of art. 41, paragraph 2, from the Mining Law no.85/2003, the authorities from the local administration have the liability to adjust and/or update the territory arrangement plans and the general urbanism plans, in order to allow the development of all operations necessary for the development of mining activities.

RMGC has also initiated the preparation of two zonal urbanism plans: Zonal Urbanism Plan Modification – Roşia Montană Industrial Area and Zonal Urbanism Plan – Roşia Montană Historical Area. The first urbanism plan is required by the urbanism certificate no.78/26.04.2006, which updates the Zonal Urbanism Plan for the Industrial Area approved in 2002. As far as the historical area is concerned, its Zonal Urbanism Plan is required by the General Urbanism Plan approved also in 2002. Both urbanism plans are pending approval and have been subject to public consultations.

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An engineered liner is included in the design of the Tailings Management Facility (TMF) basin. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam, to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

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reestablish.

With respect to your comments made as regards a presumptive infringement of the provisions of Government Decision No.351/2005 (“GD 351/2005”), there are several aspects to be taken into consideration. Thus:

1. Firstly, please note that, according to the provisions of art. 6 of GD 351/2005, any activity that might determine the discharge of dangerous substances into the environment is subject to the prior approval of the water management authorities and shall comply with the provisions of the water permit issued in accordance with the relevant legislation.

The GD 351/2005 provides that the water permit shall be issued only after all technical-construction measures are implemented as prevent the indirect discharge of dangerous substances into the underground waters. The maximum discharge limits are expressly provided under GD 351/2005 and compliance with such is a condition for granting and maintaining the water permit.

In accordance with the provisions of GD 351/2005, the actual discharge limits should be authorized by the relevant authority, such process being understood by the lawmaker in consideration of the complexity and variety of industrial activities, as well as the latest technological achievements.

Therefore, please note that the EIA stage is not intended to be finalized into an overall comprehensive permit, but it represents only a part of a more complex permitting process. Please note that, according with art. 3 of GD 918/2002, the data’s level of detail provided in the EIA is the one available in the feasibility stage of the project, obviously making impossible for both the titleholder and authority to exhaust all required technical data and permits granted.

The adequate protection of the ground water shall be ensured by the terms and conditions of the water permit. The issuance of the water permit shall be performed following an individual assessment of the project, considering its particular aspects and the relevant legal requirements applicable for mining activities. Until the water permit is obtained, any allegation regarding the infringement of GD 351/2005 is obviously premature mainly because the water permit shall regulate, in accordance with the relevant legal provisions, the conditions to be observed by the developer as regards the protection of the ground water;

2. Secondly, kindly note that the complexity and specificity of mining projects generated the need of a particular legal framework. Therefore, for such projects, the reading of the legal provisions of a certain enactment should be corroborated with the relevant provisions of the other regulations applicable.

In this respect, please not that the understanding of GD 351/2005 must be corroborated with the provisions of the entire relevant legislation enforceable as regards Roşia Montană Project, with a particular accent to Directive 2006/21/EC on the management of waste from the extractive industries (“Directive 21”).

The very scope of Directive 21 is to provide a specific legal framework for the extractive wastes and waste facilities related to mining projects, considering the complexity of such projects and the particular aspects of mining activities that can not always be subject to the common regulations on waste management and landfill.

From this perspective, Directive 21 provides that, an operator of a waste facility, as such is defined thereunder (please note that the TMF proposed by RMGC is considered a “waste facility” under Directive 21), must inter alia, ensure that:

- a) *“the waste facility is [.....]designed so as to meet the necessary conditions for, in the short and long-term perspectives, preventing pollution of the soil, air, groundwater or surface water, taking into account especially Directives 76/464/EEC (1), 80/68/EEC (2) and 2000/60/EC, and ensuring efficient collection of contaminated water and leachate as and when required under the permit, and reducing erosion caused by water or wind as far as it is technically possible and economically viable;”*
- b) *“the waste facility is suitably constructed, managed and maintained to ensure its physical stability and to prevent pollution or contamination of soil, air, surface water or groundwater in the short and long-term perspectives as well as to minimize as far as possible damage to landscape.”*

In addition, it should be mentioned that RMGC was required by MWEM under the Terms of Reference, to perform the EIA considering the provisions of Directive 21 and the BAT Management of Mining Waste. The Directive 21 was intended by the EU DG of Environment to be the legislative regime applicable to sound management of mining waste throughout Europe and therefore compliance with its provisions is mandatory.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

Roşia Montană Gold Corporation (“RMGC”) has invested significant time, energy, and resources assessing the viability of a mining project in the valley of Roşia Montană. This assessment has led RMGC to conclude that Roşia Montană presents an attractive long-term development opportunity – an opinion confirmed by a variety of lending institutions, who have completed detailed reviews of the project’s design and profitability. We have every confidence that we will see the project through to the end of its projected 16-year lifespan, regardless of any fluctuations in the market price of gold.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit;
- Trust funds;
- Letter of credit;

- Surety bonds;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

*

The Security Report has been made available for public access by being posted at the following Internet address http://www.mmediu.ro/dep_mediu/rosia_montana_securitate.htm as well as through the printed version which could have been found at several information locations established for public hearings.

*

The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The impact on protected flora and fauna will exist only locally, but this impact will not lead to the loss of any specie. The Project has been designed even from the beginning to fully comply with the requirements and norms imposed by Romanian and European environmental legislation.

The company believes the fact that the project impact on environment remains significant, especially because covers previous impacts. But, the investments required to ecologically restore/rehabilitate Roşia Montană area in order to address current complex environmental issues, are only achievable following the implementation of some economic projects that will generate and warrant implementation of some direct and responsible actions as a component of base principles of sustainable development concepts. Clean processes and technologies may be developed only in the presence of a solid economic environment fully compliant with the environment that will also resolve previous impacts of anthropic activities.

The base documents of the Project are in fact an unbiased reason of its implementation, considering the highly complex environmental commitment within Roşia Montană area.

Some of the Roşia Montană species that are under a certain protection status stand for an insignificant percentage of the scale of populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Due to their large volume of information, the annexes of chapter 4.6 Biodiversity can be found in the electronic version of the EIA disclosed by the company both in Romanian and English through approx. 6,000 DVD/CD copies, being accessible on the company website, and on the websites of Ministry of Environment and Water Management, local and regional environmental protection agencies of Alba, Sibiu, Cluj, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to reconstruct/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory.[...]

Art. 6, 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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This statement is ungrounded, because the environmental impact assessment (EIA) process has included preliminary cumulative estimates for stationary motorized equipment and linear (vehicular) sources were prepared in order to provide an initial understanding of the potential cumulative noise and vibration impacts from background and Roşia Montană Project sources, and to guide future monitoring and measurement activities as well as the selection of appropriate Best Management Practices/Best Available

Techniques for further mitigation of the potential noise and vibration impacts from Project activities. These preliminary estimates apply to major construction activities, as well as the operation and decommissioning/closure of the mine and process plant. They are documented as data tables and isopleth maps for major noise-generating activities in selected, representative Project years; see **Tables 4.3.8 through 4.3.16** and **Exhibits 4.3.1 through 4.3.9**. All these details related to the applied assessment methodology, the input data of the dispersion model, the modeling results and the measures established for the prevention/mitigation/elimination of the potential impact for all project stages (construction, operation, closure) are included in Chapter 4, Section 4.3 Noise and Vibrations of the EIA Report.

Project Years 0, 9, 10, 12, 14, and 19 were selected for modeling because they are considered to be representative of the most significant levels of noise-generating activity. They are also the same years used for air impact modeling purposes in Section 4.2, as air and noise impacts share many of the same sources or are otherwise closely correlated. In order to more accurately reflect potential receptor impacts, all of these exhibits integrate the background traffic estimates discussed in Section 4.3.6.1.

The Project site plan and process plant area and facility drawings were used to establish the position of the noise sources and other relevant physical characteristics of the site. Receptor locations were established using background reports and project engineering and environmental documentation provided by RMGC. With this information, the source locations and receptor locations were translated into input (x, y, and z) co-ordinates for the noise-modeling program.

Tables 4.3.8 through 4.3.16 and **Exhibits 4.3.1 through 4.3.9** present the average maximum noise values likely to be experienced by the receptor community over all Project phases after incorporation of a variety of initial mitigation measures designed specifically to reduce the impacts associated with mobile and stationary machinery sources. The influence of non-mining related background (primarily traffic) noise is also included.

To evaluate the sound levels associated with haul trucks and other mobile sources crossing the site carrying excavated ore, waste rock, and soil, a noise analysis program based on the (U.S.) Federal Highway Administration's (FHWA) standard RD-77-108 [1] model was used to calculate reference noise emissions values for heavy trucks along the project roadways. The FHWA model predicts hourly L_{eq} values for free-flowing traffic conditions and is generally considered to be accurate within 1.5 decibels (dB).

The model is based on the standardized noise emission factors for different types and weights of vehicles (e.g., automobiles, medium trucks, and heavy trucks), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The emission levels of all three vehicle types increase as a function of the logarithm of their speed.

To evaluate the sound sources from the proposed mine processing facility and the semi-stationary material handling equipment (at the ore extraction, waste rock and soil stockpiling areas), a proprietary computerized noise prediction program was used by AAC to simulate and model the future equipment noise emissions throughout the area. The modeling program uses industry-accepted propagation algorithms based on the following American National Standards Institute (ANSI) and International Organization for Standardization (ISO) standards:

- *ANSI S1.26-1995 (R2004), Method for the Calculation of the Absorption of Sound by the Atmosphere;*
- *ISO 9613-1:1993, Acoustics -- Attenuation of sound during propagation outdoors-- Part 1: Calculation of the absorption of sound by the atmosphere;*
- *ISO 9613-2:1996, Acoustics -- Attenuation of sound during propagation outdoors -- Part 2: General method of calculation;*
- *ISO 3891:1978, Acoustics -- Procedure for describing aircraft noise heard on the ground.*

The calculations account for classical sound wave divergence (i.e., spherical spreading loss with adjustments for source directivity from point sources) plus attenuation factors due to air absorption, minimal ground effects, and barriers/shielding.

This model has been validated by AAC over a number of years via noise measurements at several operating industrial sites that had been previously modeled during the engineering design phases. The comparison of modeled predictions versus actual measurements has consistently shown close agreement; typically in

the range of 1 to 3 dB (A).

References:

[1] FHWA Highway Traffic Noise Prediction Model; see Federal Highway Administration Report Number FHWA-RD-77-108, USA, Washington, D.C., 1978.

A detailed presentation of blasting technology can be found in the annex 7.1 - Proposed blasting technology for the operational phase of Roşia Montană Project.

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The partnership between Gabriel Resources and Regia Autonomă a Cuprului Deva (currently, CNCAF Minvest SA) has been established based on Law no. 15/1990 on the reorganization of the state owned companies as autonomous directions and trade companies, published in the Official Gazette, Section I, no. 98/08.08.1990, as subsequently amended and supplemented. Art. 35 of this law provides the possibility of the regies autonomous to enter into partnerships with legal third parties, Romanian or foreign, for the purpose of setting up new trading companies.

Roşia Montană Gold Corporation SA was set up in 1997, according to the legal provisions in force as at that time, the setting up being made by observing all the conditions imposed by Company Law no. 31/1990 and Trade Register Law no. 26/1990, in regard of the setting up of the joint stock companies with mixed capital.

We underline that the Articles of Associations of Roşia Montană Gold Corporation SA, representing the result of the parties agreement in regard of the terms and conditions under which the partnership between the Romanian state and investor takes place represents a public document, being included in the category of documents which, as per Law no. 26/1990 on the Trade Register, are published in the Romanian Official Gazette and for which the Trade Register is obliged to issue, on the expense of the persons submitting a request, certified copies.

As for the agreement concerning the setting up of the mixed company together with Gabriel Resources Ltd., this has been expressed by the Ministry of Industry and Trade, the conditions imposed by the setting up of the mixed company being the following: (i) ensuring of the jobs at the level existing upon the conclusion of the agreement concerning the setting up of the mixed company; (ii) the expenses incurred by the fulfillment of the exploration stage should be fully supported by Gabriel; (iii) the obtaining of the approval from the ANRM by the Copper Autonomous Direction Deva and (iv) the observance of all legal provisions in force concerning the setting up of the mixed companies with foreign partners. These conditions have been fully complied with as at the setting up of the company and during the development of its activity.

We also specify that the establishing of the shareholders' quotas to the benefits and losses of Roşia Montană Gold Corporation SA has been made by considering their contribution quota to the company's share capital. The current percentage of 80% for Gabriel Resources Ltd. and of 19.31% for CNCAF Minvest SA resulted from the initial contribution and the subsequent contributions of the shareholders to the company's share capital, in consideration also of Gabriel Resources Ltd. advancing all expenses and costs related to the development-exploitation and permitting of the Roşia Montană Mining Project.

The provisions of the Articles of Associations of Roşia Montană Gold Corporation SA on the necessary majority and quorum conditions for the decision-making process within the General Shareholders Meeting and the quotas to the benefits and losses of the company are taken from Law no. 31/1990, and no derogation exists in regard of this aspect.

*

This claim is not true; the Urbanism Plan has been prepared with public consultation.

Roşia Montană Gold Corporation SA (RMGC) has requested and obtained from Alba County Council the Urbanism Certificate no. 78 of 26.04.2006, for the entire Roşia Montană mining project, including the tailings management facility. The Urbanism Certificate also stipulated the preparation of a Zonal

Urbanism Plan, to reflect all changes made to the Roşia Montană Project, following the public consultations and debates organized in relation to this project, and the consultations with the permitting authorities. This plan, entitled “Modification of the Zonal Urbanism Plan, Roşia Montană Industrial Area”, was prepared and subjected to public debate in June 2006 in accordance with the provisions of Order no.176/N/2000 issued by the Ministry of Public Works and Territory Development for the approval of the technical regulations “Guidelines regarding the methodology applied for the preparation and framework content of the Zonal Urbanism Plan” and, at present, it is pending approval.

Concerning the Roşia Montană General Urbanism Plan approved in 2002, such plan was prepared in parallel with the Zonal Urbanism Plan of 2002, all the provisions of the General Urbanism Plan being also included in the Zonal Urbanism Plan. Also, the approval procedure related to the two urbanism plans was carried out in parallel.

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Preventive archaeological researches within the Roşia Montană mining project area have been undertaken based on specific techniques, specifically trial trenches in all accessible areas that are suitable for human habitation, taking into account the bibliographical information and the observations recorded during the archaeological survey campaigns, the geophysical studies and the analyses of the photogrammetric flights. In addition, surface investigations were undertaken, where appropriate.

The archaeological researches at Roşia Montană covered a large surface and focused on the areas known to have archaeological potential. THEREFORE, ALL AREAS THAT HAVE BEEN ARCHAEOLOGICALLY DISCHARGED HAD BEEN PREVIOUSLY INVESTIGATED. All research programs, beginning with the 2004 campaign, have been undertaken in full compliance with the current legal requirements, i.e. Ministerial Order no. 2392 of 6 September 2004 on the establishment of the Archaeological Standards and Procedures by the Ministry of Culture and Religious Affairs.

The proposed gold mining project at Roşia Montană has raised a series of issues related to the rescue of the historical-archaeological heritage within the area, as well as issues related to its scientific development and also the enhancement of heritage within a museum. Given the complex difficulties encountered in this respect, the Ministry of Culture and Religious Affairs decided to initiate the “Alburnus Maior” National Research Program.

The company’s role was to provide the necessary financial resources for the assessment, research and enhancement of the archaeological remains, in full compliance with the Romanian current legislation. The development of the research and of the archaeological discharge works has been conducted through specific means and methodologies that have been adjusted to the realities of every site researched, in our case, Roşia Montană. They consisted in:

- Archives studies;
- Archaeological surveys; trial trenches;
- aerial reconnaissance/survey and aerial photo interpretation ; high resolution satellite images;
- mining archaeology studies; underground topography and 3D modeling;
- geophysical surveys;
- extensive archaeological investigations in the areas with an identified archaeological potential- this implied carrying out archaeological excavations;
- Interdisciplinary studies- sedimentology, archaeo-zoology, comparative palynology, archaeo-metallurgy, geology, mineralogy;
- Radiocarbon dating and dendrochronology;
- This research and its results were included in an integrated database;
- traditional and digital archaeological topography and development of the GIS project; generate a photo archive- both traditional and digital;
- restoration of artifacts;
- an inventory and a digital catalogue of the artifacts;
- studies conducted by specialists in order to enhance the research results - publication of monographs/scientific books and journals, exhibitions, websites, etc.

All the preventive archaeological researches undertaken at Roşia Montană since 2000 have been carried

out as part of a complex research program; permits for preventive archaeological excavations being issued in compliance with the current legislation. These archaeological investigations have been undertaken by representatives of 21 specialized institutions from Romania and 3 others from abroad, under the scientific coordination of the Romanian National Museum of History. All archaeological researches have been conducted in full compliance with the existing legislation. The investigations undertaken during each archaeological research campaign have been approved by the Ministry of Culture and Religious Affairs based on the Annual Archaeological Research Plan approved by the National Commission of Archaeology.

Under the current legislation (Ministerial Order no. 2392 of 6 September 2004 on the establishment of the Archaeological Standards and Procedures by the Ministry of Culture and Religious Affairs) the archaeologists who have conducted the research may ask that an archaeological discharge certificate be granted. Based on a complex research program, the archaeologists prepare comprehensive documentation with regard to the researched area. Upon consideration of the submitted documentation, the National Commission of Archaeology makes a decision as to whether to recommend or not the granting of the archaeological discharge certificate. In the case of the research conducted in the period 2001-2006, the archaeological discharge certificate was issued directly by the Ministry of Culture and Religious Affairs or by its local agencies.

Preventive archaeological researches at Roșia Montană have allowed the research of five Roman cremation necropolis (Tău Corna, Hop-Găuri, Țarina, Jig - Piciorag and Pârâul Porcului – Tăul Secuilor), two funerary areas (Carpeni, Nanului Valley), sacred areas (Hăbad, Nanului Valley), habitation areas (Hăbad, Carpeni, Tăul Țapului, Hop), the most significant being the Roman structures on the Carpeni Hill and the circular funerary monument at Tău Găuri. In addition, for the first time in Romania, surface investigations have been paralleled by underground investigations of Cetate, Cârnic, Jig and Orlea massifs, with important discoveries in the Piatra Corbului, area, Cătălina-Monulești gallery and the Păru Carpeni mining sector.

The research consisted of aerial photo interpretation, archaeological magnetometric studies, electrical resistivity, palynology, sedimentology, geology studies, radiocarbon and dendrochronology dating. For a better management of the research units and of the archaeological findings, data bases were used, including text and photographs-among which 4 satellite images (an archive satellite image type SPOT Panchromatic (10m) from 1997; 2 satellite images LANDSAT 7 MS (30 m), dating from 2000 and 2003; a satellite image with priority programming SPOT 5 SuperMode color (2,5 m resolution-19 July 2004); all data have been included in a comprehensive GIS program, a first in the Romanian archaeological research.

In the case of archaeological monuments that are located close to industrial facilities, plans have been redesigned to ensure that the archaeological remains in question will not be affected. Where appropriate, the archaeological monument was preserved in situ and restored, i.e. the circular funerary monument at Hop-Găuri (see The "Alburnus Maior" monograph series, volume II, Bucharest, 2004). Another example in this respect is the Carpeni Hill, designated an "archaeological " reserve, and the Piatra Corbului area. In 2004, after being thoroughly investigated, these areas have been included on the List of Historic Monuments. Add to this the areas where ancient mining remains will be preserved, such as the Cătălina Monulești gallery and the mining sector Păru Carpeni, as well as the protected area Roșia Montană Historic Center, including a number of heritage assets (35 historic monument houses).

We emphasise in this respect that the identified and researched structures have been published in preliminary form in the Archaeological Research Chronicle of Romania, after every archaeological research campaign, as well as in volume 1 of the Alburnus Maior monographic series. We mention here the areas where Roman habitation structures have been identified and researched, as well as the references to be consulted for further information: Hop-Găuri, Carpeni, Tăul Țapului (CCA 2001 (2002), p. 254-257, no. 182; 261-262, nr. 185; 264-265, no. 188; 265-266, no. 189. Alburnus Maior I, 2003, p. 45-80; 81-122; 123-148; CCA 2001 (2002), 257-261; CCA 2003 (2004) ,280-283; Alburnus Maior I, 2003, p. 387-431, 433-446, 447-467).

For further details related to the applicable legal framework, the responsibilities of the Project titleholder, or for a detailed description of the preventive archaeological researches undertaken to date and of the Cultural Heritage Management Plans, please see Annex called "Information on the Cultural heritage of Roșia and Related Management Aspects". In addition, the annex includes supplementary information with regard to the result of the researches undertaken as part of the "Alburnus Maior" National Research Program between 2001 and 2006.

In conclusion, the area mentioned by the questioner has been researched in accordance with the Romanian legal requirements, as well as with European standards and practices in the field.

Note that the type of research undertaken at Roşia Montană, known as preventive/rescue archaeological research, as well as other related heritage studies, are done everywhere in the world in close connection with the economic development of certain areas. Both the costs for the research and for the enhancement and maintenance of the preserved areas are provided by investors, in a public-private partnership set up in order to protect the cultural heritage, as per the provisions of the European Convention on the Protection of the Archaeological Heritage (Malta-1992) [1].

References:

[1]The text of the Convention is available at the following address: <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=8&DF=7/6/2006&CL=ENG>

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In 2000, in the context of the proposal of a new mining project in the Roşia Montană area, the Ministry of Culture and Religious Affairs approved a series of studies to be conducted in order to research the archaeological and architectural heritage of the area. And at the end of that year, the Design Centre for National Cultural Heritage (now the National Institute for Historical Monuments) presented the preliminary results of these researches to the National Commission for Historical Monuments and of the National Commission of Archaeology. Based on these results, in 2001, the Ministry of Culture and Religious Affairs initiated the “Alburnus Maior” National Research Program (the Order no. 2504 / 07.03.2001 of the Minister of Culture and Religious Affairs) in compliance with the Law 378/2001 (as subsequently amended by Law 462/2003 and by Law 258/2006 and Law 259/2006). Thus, since 2000, the Ministry of Culture and Religious Affairs – directly or through its subordinate institutions - has fulfilled its duties with regard to the management of the issues related to Roşia Montană’s heritage.

Thus, the preventive archaeological researches have been conducted by the representatives of 21 national institutions and 3 others from abroad under the scientific coordination of the National Museum of History of Romania. They have been carried out based on the annual approval of the National Commission of Archaeology of the Ministry of Culture and Religious Affairs. In accordance with the legislation in force, this research program is carried out with the financial support provided by RMGC (the company that plans to expand and continue to mine the gold-silver deposit in Roşia Montană). Thus, large-scale preventive investigations have been conducted or are underway in the RMP impact area. A proposal will be made based on the results thereof either for the archaeological discharge of some researched perimeters from the project perimeter or the preservation *in situ* of certain representative structures and monuments, in compliance with the legislation in force. In the case of the areas proposed for conservation and the ones for which the archaeological discharge measure was applied, the decision was made based on the surveys conducted by specialists and on the analysis of the National Commission of Archaeology. In the period 2000-2005, the mining project underwent a series of modifications designed to promote the implementation of the decision regarding the conservation of the local heritage. Examples of these include: extending the duration of the field investigations on several years (e.g. Ţarina, Pârâul Porcului, Orlea) and changing the location of some elements of infrastructure in order to allow the conservation of the archaeological remains found in the Carpeni, Tău Găuri and Pietra Corbului areas.

The architectural and town-planning surveys have been conducted, in accordance with the legislation in force, by companies certified by the Ministry of Culture and Religious Affairs, while the town-planning documentations drafted by these companies and the restoration and conservation works undertaken so far have been approved by the National Commission for Historical Monuments. Thus, the town-planning documentations have been approved and implemented in accordance with current legislation, and the company has agreed to these decisions and modified the mine development plans accordingly:

Extensive ethnographic research was conducted in the Roşia Montană-Abrud-Corna area in the period 2001-2004 coordinated by a team of specialists for the Romanian Village Museum „Dimitrie Gusti” (a National Museum directly under the coordination of the Ministry of Culture and Religious Affairs). Moreover, a broad series of oral history interviews was conducted in the period 2001-2002 by the Romanian Radio Broadcasting Company through the „Gheorghe Brătianu” Oral History Centre, Bucharest

(SRR - CIO).

In compliance with the requirements of the Ministry of Environment and Waters Management and the Ministry of Culture and Religious Affairs, specific management plans have been drawn up for the management and conservation of the heritage remains from the Roşia Montană area, in the context of the implementation of the mining project. These plans have been included in the documentation prepared for the Report on the Environmental Impact Assessment Study. (see EIA Report, volume 32-33, Plan M- *Cultural Heritage Management Plan*, part I –*Management Plan for the Archaeological Heritage from Roşia Montană Area*; part II-*Management Plan for the Historical Monuments and Protected Zone from Roşia Montană*; part III- *Cultural Heritage Management Plan*).

These management plans comprise detailed presentations of the obligations and responsibilities regarding the protection and conservation of the heritage remains from the Roşia Montană area, which the company has assumed in the context of the implementation of the mining project, according to the decision of the central government. These heritage remains include: archaeological remains above and under the ground, historic buildings, protected areas, intangible heritage assets, cultural landscape items, etc. In this context, it should be noted that besides the works for the protection and preservation of the archaeological heritage, works are being carried out for the rehabilitation and conservation of the protected area Historical Centre Roşia Montană (comprising 35 historic buildings, and projects for the restoration of 11 of these buildings are currently being drafted), Tăul Mare, Tăul Brazi and Tăul Anghel as well as remains of the surface mining works from the Vaidoia area and the creation of a modern museum dedicated to the history of mining in the Apuseni Mountains area. This museum will be established in the coming years and it will include exhibitions of geology, archaeology, industrial and ethnographic heritage as well as an underground section organized around the Cătălina Monuleşti gallery.

Moreover, representatives of the Directorate for Culture, Religious Affairs and National Cultural Heritage of Alba County have visited Roşia Montană many times in order to collect information and to check the situation. The same administrative body was the intermediary for the specific stages of acquisitions of historic buildings made by RMGC. The Ministry of Culture and Religious Affairs expressed its pre-emption right regarding the acquisition of these buildings.

Note that apart from the obligations undertaken by RMGC as regards the protection and conservation of the archaeological remains and historical monuments, there are a whole series of obligations, which rest with the local public authorities from Roşia Montană and from Alba County and with the central public authorities, namely the Romanian Government.

These aspects are further detailed in the Cultural Heritage Management Plans included in the EIA Report (see EIA Report, volume 32, *Management Plan for the Archaeological Heritage from Roşia Montană Area*, pages 21-22, 47, 52-53, 66-67-Romanian version/ 22-24; 47; 55-56; 71-72 English version) and the EIA Report, volume 33- *Management Plan for the Historical Monuments and Protected Zone from Roşia Montană* pages 28-29, 48-50, 52-53, 64-65, page 98 – Annex 1- Romanian version/ 28-29; 47-50; 51-53; 65-66; 103- Annex 1- English version).

Item no.

3063

No. to identify the observations received from the public

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111786/
25.08.2006

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.

Proposal

The questioner expresses the following remarks:

- The gold and silver reserves from Roşia Montană represent one of the strategic reserves of Romani
- From economic point of view, the distribution of the benefits resulted from gold and silver extraction is opposite to the international practice
- The urbanism plans do not correspond to the project proposal;
- Within the EIA report there are no financial guarantees regarding the safety assurance of the waste deposit
- From technical point of view, the tailings management facility will be not "lined". It is situated above the Abrud town and could have a catastrophic consequence in case of failure
- The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident
- The EIA report does not assess the "zero alternative";
- The data provided by EIA report infringe the standards of environment protection

SEE THE CONTENT OF THE TYPE 2 CONTESTATION

The Romanian Mine Law, Law 85/2003, does not put any restrictions on the licenses to be given for exploration for gold and development of gold reserves. Both Romanian and foreign companies, both public and private companies, may apply to obtain a license to work a gold deposit. The Romanian state no longer has a monopoly on gold production.

Solution

We agree that Roşia Montană represents an issue of national strategic importance, designed to raise the bar for long-term investment in Romania. RMGC is the largest employer in this disadvantaged region and indeed the whole county and is the largest local taxpayer. Romania will receive about US\$ 1 billion for its share of the project, and a total of about US\$ 1.5 billion when one includes the value of goods and services procured in Romania. The project meets or exceeds all Romanian and EU standards, creates new jobs for Romanians, especially in Roşia Montană and the surrounding region, and will be a catalyst for reviving the mining sector, which is strategic to the Romanian economy and an important tool for rural development.

However, we disagree that this means the project should not be approved. RMGC has been working on this project since 1998 and has invested over US\$ 200 million to date. By the time production begins, the company will have invested almost US \$1 billion. Mining is a high risk industry; it is an industry rule of thumb that for every 1,000 projects considered, 100 merit drilling, and only one is opened as an actual productive mine. In fact, no country in the developed world is currently involved directly in assuming the risk of mining operations; instead, private capital assumes the risk and will bring the best available techniques to Romania. Approval of this project will show the world that Romania welcomes this type of productive foreign investment. The profits from the mine and the jobs provided by the mine are tangible benefits to Romania.

As regarding your request, we mention that art. 44 (3) of the Minister of Waters and Environment Protection Order no. 860/2002 on the environment impact assessment and the issuance of environmental agreements Procedures ("Order no. 860/2002") provides that *"based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report on the environmental impact assessment study with an appendix comprising solutions for the solving of the indicated issues"*.

Consequently, considering the fact that your proposal is just an allegation which does not indicate possible problems, nor provide additional information, we mention that the decision on the issuance or refusal of the environment approval cannot be made only by considering a simple proposal, but according to certain objective criteria provided by the wording of art. 45 of the Order no. 860/2002 and only after examining:

- (i) the report on the environmental impact assessment study;
- (ii) the conclusions of the parties involved in the assessment;
- (iii) the possibilities to implement the project;
- (iv) the titleholder answers to the grounded proposals/comments of the public.

*

Unlike the common international practice related to the distribution of profits, it should be noted that in relation to the Roşia Montană Project, the distribution of benefits is more favorable to Romania/Romanian State than to the investor/the titleholder of the project.

Furthermore, please observe that the Romanian government has an ownership stake in the project (without putting up any capital) and has a direct share in the profits in the expected amount of USD 306 million, along with the right to receive profit taxes, royalties and other taxes and fees. Nowhere else in the developed world does a government have a direct profit sharing interest in a mining project such as this.

*

We would like to state that your statement is erroneous. The General Urbanism Plan (PUG) of Roşia Montană approved in 2002, allows the development of Roşia Montană Project as it was presented during public debates.

At the same time, pursuant to the provisions under art. 41, 2nd paragraph from Mines Law no. 85/2003, the local authorities must alter and/or update existing territorial arrangement plans and general urban plans, in order to allow execution of all required actions to develop mining activities.

RMGC has also commenced the preparation of two zonal urbanism plans: Zonal Urbanism Plan Modification – Roşia Montană Industrial Area and Zonal Urbanism Plan – Roşia Montană Historical Area. The first urbanism plan is required by the urbanism certificate no 78 from 26.04.2006, which updates the Zonal Urbanism Plan for the Industrial Area approved in 2002. As far as the historical area is concerned, its Zonal Urbanism Plan is required by the General Urbanism Plan approved also in 2002. Both urbanism plans are pending approval and have been subject to public consultations.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have

yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit ;
- Trust funds ;
- Letter of credit ;
- Surety bonds ;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

*

Tailings Management Facility

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

Proximity to Abrud

The TMF is located approximately 2 km above the town of Abrud and therefore the design criteria for the dam have been established to address consequence of a dam failure. The proposed dam at the Tailings Management Facility (TMF) and the secondary dam at the catchment basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution.

Specifically, the facility has been designed for two Probable Maximum Precipitation (PMP) events and the associated Probable Maximum Flood (PMF). The design criterion for TMF includes storage for two PMF flood events, more rain than has ever been recorded in this area. The construction schedule for embankment and basin staging will be completed to ensure that PMP storage requirements are available throughout the project life. The Roşia Montană TMF is therefore designed to hold a total flood volume over four times greater than the Romanian government guidelines. In addition, an emergency spillway for the dam will be constructed in the unlikely event that another event occurs after the second PMP event. A spillway is only built for safety reasons to ensure proper water discharge in an unlikely event and, thus, avoid overtopping which could cause a dam breach. The TMF design therefore very significantly exceeds required standards for safety. This has been done to ensure that the risks involved in using Corna valley for tailings storage are well below what is considered safe in every day life.

Additional study was done regarding earthquakes, and, as indicated in the EIA the TMF is engineered to withstand the Maximum Credible Earthquake (MCE). The MCE is the largest earthquake that could be considered to occur at the site based on the historical record.

In addition, Section 7 of the EIA report includes an assessment of the risks cases that have been analyzed and include various dam break scenarios. Specifically, the dam break scenarios were analyzed for a failure of the starter dam and for the final dam configuration. The dam break modelling results indicate the extent of tailings run out. Based on the two cases analyzed, the tailings will not extend beyond the confluence of the Corna valley stream and the Abrud River.

However, the project recognizes that in the highly unlikely case of a dam failure that a Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.

For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.

*

The possibility for a "cyanide rain" phenomenon to occur doesn't exist. Moreover, the specialty literature

does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the populated areas close by industrial site will be of 4 to 80 µg/m³, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection - the national legislation and European Union (EU) legislation on the Quality of Air, don't stipulate limit values for the population's health protection);
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). The reactions are due to HCN being weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain not effectively reducing the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effect of air-borne HCN emissions on fauna and flora.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as

the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2 (Section 4.4.3).

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU Best Available Techniques (BAT) – compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worst case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1

*

The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

*

According to the provisions of art. 44 (3) of the Order of Ministry of Water and Environment Protection no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure („Order no. 860/2002”), the project titleholder prepares *„an evaluation of the public’s grounded proposals, containing solutions for the settlement of the underlined problems, which shall be submitted to the relevant public authority for environmental protection, according to the form presented in anenx no. IV.2”*.

We consider that, as no exact specification is made in regard of the enactments allegedly breached by the report to the environmental impact assessment study (EIA), the project’s titleholder cannot answer in regard of this affirmation of a generic character.

Though your statement is not grounded and/or supported in any way, the only authority empowered to analyze such breaches of the European legislation is the environmental authority. To this end, we specify the provisions of art. 45 of the Order no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure (“Order no. 860/2002”), which provide: *“after the examination of the report to the environmental impact assessment study, of the conclusions of the parties involved in the evaluation, of the possibilities to fulfill the project and the grounded evaluation of the public’s proposals, the public authority competent in regard of the environmental protection shall take the decision concerning the issuing of the environmental approval/integrated environmental approval or the grounded rejection of the project on the respective location”*.

Item no.

3064

No. to identify the observations received from the public

No.
112881/
25.08.2006

The questioner requests the MEWM not to emit the environment permit for the Roşia Montană mining project.

The questioner formulated remarks and proposals as follows:

- The total costs for the mine closure are unrealistic;
- The financial guarantees have not been established;
- There is no liner proposed for the tailings pond;
- The EIA report does not stipulate financial guarantees destined to secure the waste rock deposit.
- There is not a Safety Report submitted for the public consultation and evaluation by the competent authorities;

Proposal

- The EIA report does not assess the "zero alternative";
- The Project poses a threat for the protected flora and fauna;
- S.C. Roşia Montană Gold corporation S.A. does not comply with the provisions of the art.11 from the Mining Law 85/2003
- The EIA report does not contain an impact assessment of the phenomenon "cyanide rain" caused by the cyanide evaporation from the tailings management facility and a description of the trans-boundary impact in case of accident on some natural important areas such as Koros Maros National park from Hungary located along the Mureş valley

SEE TYPE 3 CONTESTATION CONTENT

The mine closure costs are not unrealistic. RMGC's closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like. They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA's Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best practice, best available technology (BAT) and compliance with all Romanian and European Union laws and regulations.

Closure and rehabilitation at Roşia Montană involves the following measures:

Solution

- Covering and vegetating the waste dumps as far as they are not backfilled into the open pits;
- Backfilling the open pits, except Cetate pit, which will be flooded to form a lake;
- Covering and vegetating the tailings pond and its dam areas;
- Dismantling of disused production facilities and revegetation of the cleaned-up areas;
- Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment;
- Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached.

While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense – that incurred by the earthmoving operation required to reshape the landscape – can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful revegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar

earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.

Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production

We believe that – far from being unrealistic – our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world’s largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

*

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RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

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RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit;
- Trust funds;
- Letter of credit;
- Surety bonds;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

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The Security Report has been made available for public access by being posted at the following Internet address http://www.mmediu.ro/dep_mediu/rosia_montana_securitate.htm as well as through the printed version which could have been found at several information locations established for public hearings.

*

The EIA Report considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue. (Chapter 5 – Assessment of Alternatives)

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project.

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The impact on the protected flora and fauna will be obvious only at local level, and it will not lead to the disappearance of any species. The mining project was conceived from the onset so as to comply with the conditions and standards stipulated by the Romanian and European legislation in the field of environmental protection.

The company believes that the environmental impact generated by proposed project remains significant the more so as it will cover the pre-existing ones. But the required investments for the ecological restoration/rehabilitation of the Roşia Montană area meant to solve complex environmental issues existing at present can be developed only after the implementation of economic projects able to generate and ensure that direct and responsible measures are taken, as part of the principles that represent the basis for the sustainable development concepts. The presence of a strong economic system is the key for the implementation of clean economic processes and technologies, in full respect of the environment, which are able to remove the previous effects generated by anthropic activities.

The documentation drafted to support this mining project represents an objective justification for its implementation given that the company assumed the environmental responsibility, which is extremely complex in the Roşia Montană area.

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Given the large amount of information contained, these tables are available in the electronic format of the EIA. 6000 DVD/CDs comprising the EIA Report have been made available to the public both in English and in Romanian. Moreover, the EIA is also available on RMGC's website as well as on the websites of the Ministry of Environment and Waters Management and of the Local and Regional Environment Protection Agencies of Alba County, Cluj County and Sibiu County, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to restore/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in

Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory. [...]

Art. 6. 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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The possibility for a “cyanide rain” phenomenon to occur doesn’t exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in the atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings

management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;

- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the areas situated up to 2 km towards the north-eastern vicinity of the industrial site will be of 4 to 80 µg/m³/h, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection;
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). HCN is weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain will not effectively reduce the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effects of a potential exposure of the vegetation or ecosystems to HCN and neither the effects of the fauna health as a result of inhaling the HCN polluted air.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2.

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mures and Tisa river basins in Hungary. Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU BAT-compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1.

Item no.

3065

No. to identify the observations received from the public

No.
111729/
25.08.2006

Proposal

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.

The questioner made the following remarks:

- The project represents a threatening to the protected flora and fauna infringing the EU Directive regarding habitats;
- Roşia Montană possesses remarkable archeological vestiges which will be destroyed due to the project implementation
- RMGC did not realize other similar projects
- The project is contradictory to the durable development principle;
- Since the discussions about Project started any other modality of the area development was not taken into consideration
- What will happen in case of company bankrupt?
- The precaution principle should have to be applied before to grant the environment permit for this project

The impacts on protected flora and fauna will occur only locally, but these impacts will not lead to the disappearance of any species. The mining project was designed even from the beginning to meet all Romanian and European environmental legal requirements.

The company believes that the project's impact on the environment remains significant, especially because the project will cover previous environmental impact. But, the investments required to restore/rehabilitate Roşia Montană area in order to resolve current complex environmental issues, are possible only after the implementation of economic projects capable of generating and warranting responsible and direct courses of action as a base component of sustainable development concepts. Clean economic processes and technologies may develop only in the presence of a solid economic system, in a total respect towards environment that will resolve even previous impacts caused by all anthropic activities.

Project's base documents are an unbiased reasoning of its implementation, taking into account the complex environmental commitments assumed for Roşia Montană area.

Solution

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Due to the large amount of information, these tables are available in the electronic format of EIA. 6,000 electronic copies of EIA Report presented on DVD/CDs have been disclosed to the public both in English and Romanian. Moreover, the EIA is also available on RMGC's website and on the websites of Ministry of Environment and Waters Management and Local and Regional Environment Protection Agencies of Alba, Cluj and Sibiu, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area an SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to

restore/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

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art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory. [...]

Art. 6. 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

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Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species , taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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Based on the specialist reports and publications, the Roman galleries at Roşia Montană are considered important, but not unique. Thus, a catalog of ancient mining works in Transylvania and Banat – developed as part of the Environmental Impact Assessment Study for Roşia Montană – states that it is difficult to justify a claim that the Roşia Montană site is unique, at least in the context of Roman mining operations throughout the Empire, and particularly in Dacia Province. There are at least 20 other sites of relatively similar characteristics – some of which, including Ruda Brad, Bucium – the Vulcoi Corabia and the Haneş – Amlaşul Mare areas, have already provided real data on archeological remains comparable to the ancient *Alburnus Maior* and discount claims for the uniqueness of the site.

Prior to 1999, the Roman galleries at Roșia Montană were not researched by mining archeology specialists, although their existence had been known for over 150 years. In practice, before 2000, this type of archeological remains was unknown from scientific research, the references connected to these being in most of the times empirical. Neither the surface archaeological were better known the real sense of the word, but information originated from chance finds occasioned by agricultural and construction works.

Mining archeology research conducted – since 1999 – by a multi-disciplinary specialist team from the University of Toulouse Le Mirail (France), and coordinated by Dr. Beatrice Cauuet aimed to develop – as a first in Romania – a detailed study of this type of archeological remains, i.e. old mining galleries of Roman and later periods. Extensive research and heritage studies conducted during 200-2006 helped create a comprehensive image of these the national cultural heritage assets, and to adopt specific measures in regard to their protection.

The study of these structures therefore meant better knowledge and documented decision making in regard to their conservation and enhancement. Based on the results of research conducted to date (and finalized for Cetate, Cârnic, Jig and ongoing in Orlea), it was decided to preserve and enhance the following areas of old mining works:

- the Cătălina Monulești Gallery – located in the Historic Center of Roșia Montană, where the most important cache of wax tablets and an ancient mine drainage system had been found in the past;
- mining sector Păru Carpeni – located in the south-eastern part of Orlea, where a successive chamber drainage system equipped with Roman wooden installations (wheels, channels, etc.) was discovered;
- the Piatra Corbului area – located in the south-western part of Cârnic, and preserving traces of fire and water mining operations of ancient and medieval age;
- the Văidoaia area – north-west of Roșia Montană village, preserving areas of ancient open cast mining.

Preventive archeological research conducted in 2001-2006 helped define and research 13 archeological sites, for some of which – once exhaustive research work was finalized – the decision was to apply the archeological duty of care removal procedures, while for others it was decided to apply on site conservation – the funerary precinct at Tăul Găuri, the Roman relics on Dealu Carpeni; Orlea area will be researched in detail during the 2007-2012 period.

As for the historic mining galleries of the Roman period discovered in the mining sectors of Cătălina Monulești and Păru Carpeni, comprehensive rehabilitation, reinforcement and development works have been planned, in order help preserve them in situ and develop them for tourism. This decision was based on the value of the archeological remains preserved in the galleries, i.e. the wooden Roman installations built for the drainage of mine water during the Roman Age (the so-called Roman wheels). At the same time, the gallery at Cătălina Monulești is renowned for being the one where – in mid 19th century – the most significant cache of waxed tablets was discovered (according to the sources in the historical archives they were 11 of the 32 artifacts of this kind known to date).

Most of the ancient mining works in Carnic mountain, as well as other mining sectors, are only accessible in difficult conditions, to specialists, and are partly inaccessible to the public at large. Moreover, safety regulations governing similar activities in the museums of the European Union, and which will become law for Romania as well, are not compatible with the conversion of the Roman galleries, inherently exposed to high risk factors, to a space available to tourists. Note that there will be comparable Roman gallery sections that will be preserved on site. As an impact mitigation measure, apart from the full research and publication of research results, the specialists considered it appropriate to develop a 3D graphic model of these structures, and 1:1 replicas within the proposed mining museum at Roșia Montană.

As an alternative, the elaboration of a specialty study was taken into account in order to evaluate the costs needed for the integral preservation and introduction into the tourism circuit of the galleries situated in Cârnic massif. Thus, the necessary investments in order to arrange and maintain the public tourism in this massif rise at an amount unjustified from economic point of view (see the informative brochure entitled *Costs Estimate for the Development of Ancient Mining Networks from Cârnic* elaborated by British companies Gifford , Geo-Design and Forkers Ltd).

For the Orlea area (the only one where ancient mining relics have been classified to date, i.e. under HML 2004 Roman mining operations at Alburnus Maior, Orlea area cod LMI AB-I-m-A-00065.02), research has only been of a preliminary nature so far. Detailed research of this area is planned for 2007-2012, and when this research is finalized the necessary measures under the law will have to be taken, either to conserve some sections on site, or to apply the archeological duty of care removal procedure for others. Detailed information on random archeological discoveries and preliminary archeological research (both above and underground) in the area of Orlea Hill was published in the Environmental Impact Assessment Study for the Roșia Montană Project, vol. 6 – Cultural Heritage Baseline Study, Annex I p. 231-236. Also note that the study further states: “As Project development in Orlea area has been scheduled for a later date, as of 2007, surface archeological investigations will focus on this area. Thus, the building activities involved in Project implementation can not be initiated before archeological investigations carried out under the Romanian legal provisions and international recommendations and practice have been finalized. (Cultural Heritage Baseline Study, vol. 6, p. 46).

Within the Orlea Massif from Roșia Montană, a Mining Museum was established in 1980. In this mining perimeter a series of well preserved galleries were arranged and separated by concrete walls towards the mining works which assured the access. The Orlea galleries have a characteristic trapezoidal profile, similarly with the mining works from Cărnic and other mining sector from Roșia Montană. Also, these ancient works suffered in time successive “reshaping”, respectively the taking again having in regard the mining of new ore reserves. These mining works destroyed parts from these ancient remains. Moreover, their preservation state falls into disrepair due to the recent mining works which used drilling – blasting technology, a fact leading to the rock destabilization and destroying of the underground mining remains. The removal of the rockfill from the ancient mining works during the mining archaeological investigations represents another factor contributing to the degradation of the ancient mining works. The degradation of the preservation condition of the mining remains of all ages is accelerated also by the closure of the mining operation managed by Minvest (June 01 2006), which assured, at a minimum level, the global drainage of the system of galleries of the Roșia Montană mine. The closure of a mining activity, according to the national norms in force, implies an extremely wide range of preservation measures, but at Roșia Montană the extractive activity purely and simply was stopped, the mine being abandoned. After few months from abandon, the main gallery of the mine water drainage, namely the Sf. Cruce from Orlea gallery is in a critic condition. In fact, the mine water silted the drainage ways longer than several kilometers. In the case when this mining heritage will be only “frozen” without to take maintenance measures, having in regard their preservation for the next generations, the result will be disastrous. All still existing remains will disappear due to the underground falling and flood. A relevant example consists – unfortunately – from the “Roman steps” from Brad (Roman remains also listed by Law 5/2000) where these became inaccessible when the maintenance works ceased.

Considering the importance of the cultural heritage at Roșia Montană and current legislation, the heritage research budget allocated for 2001-2006 by S.C. Roșia Montană Gold Corporation S.A. amounted to more than 10 million US\$. Moreover, based on the research results, the specialist opinions and competent authority decisions, the budget estimated by the Company for the research, conservation and restoration of the cultural heritage at Roșia Montană in future years, provided the Project is implemented, will be US\$ 25 million, as disclosed in the Environmental Impact Assessment of May 2006 (see EIA Report vol. 32, Archeological Heritage Management Plan for Roșia Montană area, p. 84-84). Therefore, the intention is to continue work in Orlea area, and especially to create a **modern Mining Museum** with **geological, archeological, industrial and ethnographic heritage** displays, and the development of tourist access to the **Cătălina-Monulești** gallery and to the monument at **Tău Găuri**, as well as to **preserve and restore the 41 historic monument buildings and the protected area of Roșia Montană Historic Center**.

For summary information on the history of the research and the main discoveries related to the historic galleries at Roșia Montană, as well as for specialist conclusions in the matter, and assessments of a potential tourist trail of the historic mining structures at Cărnic, or for the opinions formulated in 2004 by Edward O’Hara, General Rapporteur on the Cultural Heritage for the Parliamentary Assembly of the European Council, please consult the annexes entitled “Information on the Cultural Heritage of Roșia Montană and Related Management Aspects” and “Costs Estimate for the Development of Ancient Mining Networks from Cărnic”, as well as the annexed version in Romanian language of the O’Hara report. Detailed information on the complex issues involved in the study of old mining works at Roșia Montană, on the results of this research

and the prospective capitalization options is available in the Environmental Impact Assessment Study for the Roşia Montană Project, vol. 6 – Baseline Study, p. 26, 32-53, 79-105.

In conclusion, we note that there is no question of destroying the archeological remains at Roşia Montană, or of merely replacing them with replicas. Research of this type – known as preventative/rescue archeological research – is done everywhere in the world in relation to economic development of areas, and the costs thereof, as well as the costs of enhancing and maintaining the preserved areas, have to be provided by the investors, which leads to the establishment of a public private partnership in the protection of cultural assets, as provided by the European Convention of Malta (1992) on the protection of the archeological heritage [1].

It is worth stressing that, apart from the obligations RMGC has committed to in protecting and preserving archeological remains and historic monuments, there are a number of obligations that relate to both the local government authorities in Roşia Montană and Alba County and to the central government authorities, i.e. the Romanian State. The Cultural Heritage Management Plans included in the EIA Study Report provide clarification of such aspects (see EIA Report, vol. 32, Management Plan for the Archeological Heritage at Roşia Montană p. 22-24; 49; 55-56; 71-72 and EIA Report, vol. 33, Management Plan for the Historic Monuments and Protected Areas at Roşia Montană p. 28-29, 47-50, 51-53, 65-66, p. 103 – Annex 1).

All these publicly assumed commitments of the Company are described in detail in the EIA Report, vol. 33, Cultural Heritage Management Plan.

References:

[1] - The text of this Convention is available on website:<http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=8&DF=7/6/2006&CL=ENG>

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The management of Gabriel Resources Ltd., the major shareholder in RMGC, has over 60 years of experience permitting seven mine projects on four continents. This is an extremely strong foundation for the work on the Roşia Montană Project.

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On the contrary, the Roşia Montană Project (RMP) will support the sustainable development of the area.

A starting premise to this context is that RMGC is committed to ensuring that RMP will be a catalyst for local and regional economic development. It is recognised that, as with any major industrial development, impacts will be positive and negative. RMGC commits to work alone and in partnership to ensure that beneficial impacts will be maximised. RMGC will priorities a participatory approach wherever possible and will seek guidance from local and regional authorities and from the community when deciding on issues that may impact the area's development. Negative impacts will be mitigated through measures as described in the EIA report.

RMGC recognizes that in order to ensure it meets its sustainable development commitments it must support, as a minimum, five key interrelated areas that make up the three traditional pillars of sustainable development - social, environmental and economic. These areas are presented below as five capitals of sustainable development.

RMGC has developed its Sustainable Development Policy [1] in support of this and this is presented further on in this annex. Supporting elements are also presented, as are a set of Authority, Community, and Company initiatives within the Roşia Montană Sustainable Development Partnerships and Programs.

1. Five Capitals of Sustainable Development

Financial Capital

Economic Development Impact, fiscal management, taxes

- Average of 1200 jobs during construction over 2 years, the majority of which sourced locally
- 634 jobs during operations (direct employment including contracted employment for cleaning,

- security, transportation, and other), for 16 years, most of which sourced locally
- Some 6000 indirect jobs for 20 years, locally & regionally [2]
- US\$ 1 billion in profit share, profit tax, royalties and other taxes and fees to Romanian local, regional & national government
- US\$ 1.5 billion procuring goods & services. US\$ 400 million during construction (2 years) and US\$ 1.1 billion during production, from Romania (16 years)

To further promote and develop the economic opportunities presented by the RMP, RMGC is also cooperating with local stakeholders regarding setting up their own businesses:

- The set up of a micro-credit finance facility in the area to allow access to affordable financing
- The set up of a business centre and incubator units, offering mentoring, training (entrepreneurial, business plans, fiscal & administrative management, etc), legal, financial & administrative advice to promote local & regional business development both to service the RMP but also to encourage entrepreneurship in preparation of the post-mining sustainable development needs,

Physical Capital

Infrastructure – including buildings, energy, transport, water and waste management facilities

- Increases in revenue to government agencies, of the order of US\$ 1 billion over 20 years (construction + production + closure) will result in additional money the government may allocate to improving community infrastructure
- RMGC will also develop the resettlement sites of Piatra Albă and Dealul Furcilor in Alba Iulia. Piatra Albă will contain a new civic centre, commercial and residential areas. These will be transferred to the local authorities once complete. The RRAP contains full details of these initiatives

Human Capital

Health and education

- A private dispensary & health clinic in Piatra Albă (see RRAP), accessible to wider community through health insurance
- Upgrading of a wing of Abrud hospital, accessible to the wider community through the national Romanian health system
- Improvement of mobile emergency medical system in the area
- The building of a new school, residential & civic centre in Piatra Albă. This is fully described in the RRAP
- Health awareness campaigns (in partnership with local authorities & NGOs) covering: reproductive health, diet, and lifestyle amongst others
- Partnerships with education providers & NGOs concerning access to & improvement of education facilities in the area, e.g.: the NGO and local authorities lead CERT Educational Partnership (www.certapuseni.ro).

Social Capital

Skills training, community relationships and social networks and the institutional capacity to support them, preservation of cultural patrimony

- Efforts to develop and promote Roşia Montană's cultural heritage for both locals and tourism – RMGC is a partner in the Roşia Montană Cultural Heritage Partnership (info@rmchp.ro)
- Providing adult education opportunities and skills enhancement including training programs, funds and scholarships, to increase employment chances both direct with RMGC and indirect – RMGC is a partner in the Roşia Montană Professional and Vocational Program (info@rmpvtp.ro)
- Programs assisting vulnerable people & groups, and to consolidate social networks particularly in Roşia Montană – RMGC is a partner in the Roşia Montană Good Neighbour Program lead by local NGO ProRoşia (info@rmgnp.ro)
- RMGC supports a NGO-lead partnership working with the youth in the area to improve and increase the capacity of the community (www.certapuseni.ro).

Natural Capital

Landscape, biodiversity, water quality, ecosystems

- Measures contained in the RMP management plans and SOPs will result in mitigation of environmental impacts and conditions as identified in the EIA.

- The improved environmental condition will enhance the quality of life in Roşia Montană.
- Training & assistance in integrating environmental considerations into business plans.
- Awareness-building regarding positive environmental performance of business activities.
- Environmental standards associated with loans through the micro-credit finance facility including monitoring of environmental performance.
- Business Code of Conduct requiring suppliers to RMP to comply with RMGC's environmental performance standards.

RMGC's view of the social and economic benefits of the RMP is described in the Community Sustainable Development Plan and EIA Chapter 4.8 – the Social and Economic Environment.

In order to achieve its commitments, RMGC acknowledges that it needs to collaborate with the Community, Authorities and civil society on issues that impact the area's development. This approach allows the Community to own, direct and control all relevant development issues in a multi-stakeholder and integrated manner.

In the spirit of that commitment, to date, RMGC has conducted extensive consultations, including 1262 individual meetings and interviews, and the distribution of questionnaires for which over 500 responses have been received, 18 focal group meetings, and 65 public debates, in addition to holding discussions with government authorities, non-governmental organisations and potentially affected stakeholders. Feedback has been used in the preparation of the Management Plans of the RMP's Environmental Impact Assessment (EIA) as well as the drafting of the Annex to the EIA.

Support of the area's sustainable development will be conducted within the framework of Partnership as promoted by organisations such as the United Nations Development Program (UNDP). For example, future socio-economic impacts mitigation and enhancement measures will be conducted under the guidance of the Roşia Montană Socio-Economic Research Centre (info@rmserc.ro), which in turn is partnered with the local authorities. This will allow a transparent evaluation of the effectiveness of sustainable development support and will provide a forum to implement necessary improvements.

Other sustainable development support partnerships are presented under the section entitled Roşia Montană Sustainable Development Programs and Partnerships further in this annex (www.rmsdpps.ro).

Beyond immediate direct and indirect benefits, the presence of the RMP as a major investment improves the area's economic climate, that will in turn encourage the development of non-mining activities. It is expected that the improved investment and economic climate will lead to business opportunities that can develop concurrent with the RMP, even as they extend well beyond economic activities related directly to mining operations. This diversification of economic development is a critical benefit of the investments generated to realise the RMP.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

References:

[1] This is an updated version of the policy already presented in the EIA management plans – it has been improved following feedback during public consultation.

[2] Economists have argued that the multiplier effect for the RMP is in the order of 1 Direct job to 30 Indirect Full Time Job Equivalents over twenty years – the methodology used may be available via a direct request to RMGC. However, the more conservative 1 : 10 Direct : Indirect figure is used here to maintain consistency with internationally accepted multiplier effects for large mining projects in impoverished regions, such as mentioned in UNCTAD (2006) *Commodity policies for development: a new framework for the fight against poverty*. TD/B/COM.1/75, Geneva, Switzerland. From experience, this is also the number most often quoted in Canada.

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We underline the fact that the Report on Environmental Impact Assessment Study assesses, within Chapter 5, the *Assessment of the Alternatives*, various development alternatives for the area of Roşia Montană, alternatives for the current Project.

The mining project proposed by Roșia Montană Gold Corporation (RMGC) covers only 25% of the Roșia Montană commune territory. The restrictions related to the construction of non-industrial facilities apply only to this part of the area, while the remaining 75% of the territory is not affected by any restrictions generated by the mining project at issue.

In order to make sure that the mining project development plan does not prejudice other potential development activities in the area, RMGC has complied with the obligation to examine the national, regional and local plans, such as not affect the other development opportunities of the Roșia Montană Commune. The next step was the public consultation and debate stage, of approximately six months, when other development proposals and opportunities could be discussed, in addition to those presented by RMGC. These consultations have revealed that the mining project proposed by Roșia Montană Gold Corporation does not discourage any other forms of development in the Roșia Montană area, at present or on the long term.

Moreover, we would like to underline that the restrictions of the industrial area have been established following a scientific analysis, based on which the protection areas have been delimited. The town-planning regulations of the Zonal Urbanism Plan will establish in detail the future uses of various areas, while the restriction related to construction or development of everyday activities will be maintained only for the footprint of the planned facilities.

The experience of other similar projects demonstrates that industrial activities such as those included in a mining project may be carried out concurrently with other businesses.

The General Urbanism Plan developed in 2002 for the entire Roșia Montană modifies the General Urbanism Plan of 2000, only to incorporate a protected area including historical buildings. The restrictions generated by the mining project also existed in the General Urbanism Plan of 2000 for the industrial area, therefore the modifications are not related to the current mining project. Right now, the modified Zonal Urbanism Plan – Roșia Montană Industrial Area is pending approval. This urbanism documentation was also approved in 2002, given the advanced stage of the Roșia Montană project (e.g. reduction of the open-pits footprint; some of the technological roads have been re-designed; increase of the surface of the protected area. All these changes were made following the environmental impact assessment and the measures meant to prevent, mitigate and eliminate the potential impact established as a result of the environmental impact assessment process).

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Regardless of the financial condition of the Roșia Montană Gold Corporation (“RMGC”), the Romanian government will have no financial liability in connection with the rehabilitation of the Roșia Montană project.

RMGC has invested significant time, energy, and resources assessing the viability of a mining project in the valley of Roșia Montană. This assessment has led RMGC to conclude that Roșia Montană presents an attractive long-term development opportunity – an opinion confirmed by a variety of lending institutions, who have completed detailed reviews of the project’s design and profitability. We have every confidence that we will see the project through to the end of its projected 16-year lifespan, regardless of any fluctuations in the market price of gold.

RMGC recognizes that mining, while permanently changing some surface topography, represents a temporary use of the land. Thus from the time the mine is constructed, continuing throughout its lifespan, closure-related activities – such as rehabilitating the land and water, and ensuring the safety and stability of the surrounding area – will be incorporated into our operating and closure plans.

In Romania, the creation of an Environmental Financial Guarantee (“EFG”) is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003). Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

There are two separate and distinct EFGs under Romanian law.

The first, which is updated annually, focuses on covering the projected reclamation costs associated with the operations of the mine in the following year. These costs are of no less than 1.5 percent per year, of total costs, reflective of annual work commitments.

The second, also updated annually, sets out the projected costs of the eventual closure of the Roşia Montană mine. The amount of the EFG to cover the final environmental rehabilitation is determined as an annual quota of the value of the environmental rehabilitation works provided within the monitoring program for the post-closure environmental elements. Such program is part of the Technical Program for Mine Closure, a document to be approved by the National Agency for Mineral Resources (“NAMR”).

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine).

The annual updates capture the following four variables:

- Changes in the project that impact reclamation objectives ;
- Changes in Romania’s legal framework, including the implementation of EU directives ;
- New technologies that improve the science and practice of reclamation ;
- Changes in prices for key goods and services associated with reclamation.

Once these updates are completed, the new estimated closure costs will be incorporated into RMGC’s financial statements and made available to the public.

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposits ;
- Trust funds ;
- Letter of credit ;
- Surety bonds ;
- Insurance policy .

*

The strongest evidence as to the application of the precautionary principle in the procedure for the issuance of the environmental permit for the Roşia Montană project is the whole process of

environmental impact assessment in its complexity.

These are some of the aspects that support this statement:

- 11 baseline reports regarding the quality of the environmental media, the cultural heritage and the population's health status;
 - More than 100 experts who have assessed, estimated and quantified the potential impact of the project and proposed concrete solutions for its prevention, minimization and removal;
 - 16 public debates- this is a first for the EIA procedure in Romania.
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Item no.	3066 Same as: 3067, 3068, 3069, 3070, 3071, 3072	
No. to identify the observations received from the public	No. 112876/25.08.2006	Same as: No. 112156/25.08.2006, No. 112157/25.08.2006, No. 112127/25.08.2006, No. 112128/25.08.2006, No. 112882/25.08.2006, No. 112961/25.08.2006
Proposal	<p>The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.</p> <ul style="list-style-type: none"> - The questioner expressed remarks and proposals as follows: - The total costs for mine closure are unrealistic; - No financial guarantees have been stipulated; - There is no liner proposed for the tailings pond; - The EIA report does not stipulate financial guarantees destined to secure the waste rock deposit. - there is no safety report available for the public disclosure and competent authorities assessment, in accordance with the legislation in force. - The EIA report does not assess the "zero alternative"; - The Project poses a threat for the protected flora and fauna; - S.C. Roşia Montană Gold corporation S.A. does not comply with the provisions of the art.11 from the Mining Law 85/2003 - The EIA report does not contain an impact assessment of the phenomenon “cyanide rain” caused by the cyanide evaporation from the tailings management facility and a description of the trans-boundary impact in case of accident on some natural important areas such as Koros Maros National park from Hungary located along the Mureş valley <p>SEE TYPE 3 CONTESTATION CONTENT</p>	
Solution	<p>RMGC's closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like. They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA's Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best practice, best available technology (BAT) and compliance with all Romanian and European Union laws and regulations.</p> <p>Closure and rehabilitation at Roşia Montană involves the following measures:</p> <ul style="list-style-type: none"> • Covering and vegetating the waste dumps as far as they are not backfilled into the open pits ; • Backfilling the open pits, except Cetate pit, which will be flooded to form a lake ; • Covering and vegetating the tailings pond and its dam areas ; • Dismantling of disused production facilities and revegetation of the cleaned-up areas ; • Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment ; • Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached. <p>While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense—that incurred by the earthmoving operation required to reshape the landscape—can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful revegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar</p>	

earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.

Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production.

We believe that—far from being unrealistic—our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world’s largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

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Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

Roşia Montană Gold Corporation (“RMGC”) has invested significant time, energy, and resources assessing the viability of a mining project in the valley of Roşia Montană. This assessment has led RMGC to conclude that Roşia Montană presents an attractive long-term development opportunity – an opinion confirmed by a variety of lending institutions, who have completed detailed reviews of the project’s design and profitability. We have every confidence that we will see the project through to the end of its projected 16-year lifespan, regardless of any fluctuations in the market price of gold.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in

time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit;
- Trust funds;
- Letter of credit;
- Surety bonds;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roșia Montană project.

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An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roșia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roșia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline,
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it

will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

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- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roșia Montană project.

*

This claim is not true. The safety report was submitted together with the Environmental Impact Assessment (EIA) Report on May 18th, 2006 and was available for public consultation at the locations

where the EIA Report was submitted, both as hardcopy and in electronic form. The electronic copy of the report could be accessed both on the web page of the Ministry of Environment and Water Management, and on www.povesteaadevarata.ro.

*

The EIA Report considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue. (Chapter 5 – Assessment of Alternatives)

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project.

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The impact on the protected flora and fauna will be obvious only at local level, and it will not lead to the disappearance of any species. The mining project was conceived from the onset so as to comply with the conditions and standards stipulated by the Romanian and European legislation in the field of environmental protection.

The company believes that the environmental impact generated by proposed project remains significant the more so as it will cover the pre-existing ones. But the required investments for the ecological restoration/rehabilitation of the Roşia Montană area meant to solve complex environmental issues existing at present can be developed only after the implementation of economic projects able to generate and ensure that direct and responsible measures are taken, as part of the principles that represent the basis for the sustainable development concepts. The presence of a strong economic system is the key for the implementation of clean economic processes and technologies, in full respect of the environment, which are able to remove the previous effects generated by anthropic activities.

The documentation drafted to support this mining project represents an objective justification for its implementation given that the company assumed the environmental responsibility, which is extremely complex in the Roşia Montană area.

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Given the large amount of information contained, these tables are available in the electronic format of the EIA. 6000 DVD/CDs comprising the EIA Report have been made available to the public both in English and in Romanian. Moreover, the EIA is also available on RMGC's website as well as on the websites of the Ministry of Environment and Waters Management and of the Local and Regional Environment Protection Agencies of Alba County, Cluj County and Sibiu County, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to restore/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory. [...]

Art. 6. 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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The possibility for a “cyanide rain” phenomenon to occur doesn’t exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in the atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the

- cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
 - The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
 - The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
 - The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
 - The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
 - Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
 - The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
 - The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
 - The HCN concentrations within the ambient air from the areas situated up to 2 km towards the north-eastern vicinity of the industrial site will be of 4 to 80 µg/m³/h, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection;
 - Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). HCN is weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain will not effectively reduce the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
 - The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effects of a potential exposure of the vegetation or ecosystems to HCN and neither the effects of the fauna health as a result of inhaling the HCN polluted air.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2.

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mures and Tisa river basins in Hungary. Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a

result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU BAT-compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1.

Item no.

3073

No. to identify the observations received from the public

No.
112121/
25.08.2006

Proposal

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project

In order to support this request the questioner advances as argument the fact that the project does not demonstrate that will contribute to the durable development of the area.

As regarding your request, we mention that art. 44 (3) of the Minister of Waters and Environment Protection Order no. 860/2002 on the environment impact assessment and the issuance of environmental agreements Procedures ("Order no. 860/2002") provides that *"based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report on the environmental impact assessment study with an appendix comprising solutions for the solving of the indicated issues"*.

Consequently, considering the fact that your proposal is just an allegation which does not indicate possible problems, nor provide additional information, we mention that the decision on the issuance or refusal of the environment approval cannot be made only by considering a simple proposal, but according to certain objective criteria provided by the wording of art. 45 of the Order no. 860/2002 and only after examining:

- the report on the environmental impact assessment study;
- the conclusions of the parties involved in the assessment;
- the possibilities to implement the project;
- the titleholder answers to the grounded proposals/comments of the public.

*

Solution

According to art. 11 of the GD no. 918/2002 [1], on establishing the framework-procedure for the environmental impact assessment and for the approval of the list of public and private projects subject to this procedure ("GD no. 918/2002") *"The EIA Report is subject to public comments, whose pertinent statements should be considered throughout the EIA procedure. The competent authority for the environmental protection, together with the authorities represented in CAT, analyzes the quality of the report to the environmental impact assessment study (inclusively of the annex containing the titleholder's answers to the comments and observations made by the public – our note), and decides to accept or that the report should be remade and to issue, respectively to justifiably reject the issuance of the environmental approval"*

A starting premise to this context is that RMGC is committed to ensuring that the Roşia Montană Project (RMP) will be a catalyst for local and regional economic development. It is recognised that, as with any major industrial development, impacts will be positive and negative. RMGC commits to work alone and in partnership to ensure that beneficial impacts will be maximised. RMGC will priorities a participatory approach wherever possible and will seek guidance from local and regional authorities and from the community when deciding on issues that may impact the area's development. Negative impacts will be mitigated through measures as described in the EIA report.

RMGC recognizes that in order to ensure it meets its sustainable development commitments it must support, as a minimum, five key interrelated areas that make up the three traditional pillars of sustainable development - social, environmental and economic. These areas are presented below as five capitals of sustainable development.

RMGC has developed its Sustainable Development Policy [1] in support of this and this is presented further on in this annex. Supporting elements are also presented, as are a set of Authority, Community, and Company initiatives within the Roşia Montană Sustainable Development Partnerships and Programs.

1. Five Capitals of Sustainable Development

Financial Capital

Economic Development Impact, fiscal management, taxes

- Average of 1200 jobs during construction over 2 years, the majority of which sourced locally
- 634 jobs during operations (direct employment including contracted employment for cleaning, security, transportation, and other), for 16 years, most of which sourced locally
- Some 6000 indirect jobs for 20 years, locally & regionally [2]
- US\$ 1 billion in profit share, profit tax, royalties and other taxes and fees to Romanian local, regional & national government
- US\$ 1.5 billion procuring goods & services. US\$ 400 million during construction (2 years) and US\$ 1.1 billion during production, from Romania (16 years)

To further promote and develop the economic opportunities presented by the RMP, RMGC is also cooperating with local stakeholders regarding setting up their own businesses:

- The set up of a micro-credit finance facility in the area to allow access to affordable financing
- The set up of a business centre and incubator units, offering mentoring, training (entrepreneurial, business plans, fiscal & administrative management, etc), legal, financial & administrative advice to promote local & regional business development both to service the RMP but also to encourage entrepreneurship in preparation of the post-mining sustainable development needs,

Physical Capital

Infrastructure – including buildings, energy, transport, water and waste management facilities

- Increases in revenue to government agencies, of the order of US\$ 1 billion over 20 years (construction + production + closure) will result in additional money the government may allocate to improving community infrastructure
- RMGC will also develop the resettlement sites of Piatra Albă and Dealul Furcilor in Alba Iulia. Piatra Albă will contain a new civic centre, commercial and residential areas. These will be transferred to the local authorities once complete. The RRAP contains full details of these initiatives

Human Capital

Health and education

- A private dispensary & health clinic in Piatra Albă (see RRAP), accessible to wider community through health insurance
- Upgrading of a wing of Abrud hospital, accessible to the wider community through the national Romanian health system
- Improvement of mobile emergency medical system in the area
- The building of a new school, residential & civic centre in Piatra Albă. This is fully described in the RRAP
- Health awareness campaigns (in partnership with local authorities & NGOs) covering: reproductive health, diet, and lifestyle amongst others
- Partnerships with education providers & NGOs concerning access to & improvement of education facilities in the area, e.g.: the NGO and local authorities lead CERT Educational Partnership (www.certapuseni.ro).

Social Capital

Skills training, community relationships and social networks and the institutional capacity to support them, preservation of cultural patrimony

- Efforts to develop and promote Roşia Montană's cultural heritage for both locals and tourism – RMGC is a partner in the Roşia Montană Cultural Heritage Partnership (info@rmchp.ro)
- Providing adult education opportunities and skills enhancement including training programs, funds and scholarships, to increase employment chances both direct with RMGC and indirect – RMGC is a partner in the Roşia Montană Professional and Vocational Program (info@rmpvtp.ro)
- Programs assisting vulnerable people & groups, and to consolidate social networks particularly in Roşia Montană – RMGC is a partner in the Roşia Montană Good Neighbour Program lead by local NGO ProRoşia (info@rmgnp.ro)
- RMGC supports a NGO-lead partnership working with the youth in the area to improve and increase the capacity of the community (www.certapuseni.ro).

Natural Capital

Landscape, biodiversity, water quality, ecosystems

- Measures contained in the RMP management plans and SOPs will result in mitigation of environmental impacts and conditions as identified in the EIA.
- The improved environmental condition will enhance the quality of life in Roşia Montană.
- Training & assistance in integrating environmental considerations into business plans.
- Awareness-building regarding positive environmental performance of business activities.
- Environmental standards associated with loans through the micro-credit finance facility including monitoring of environmental performance.
- Business Code of Conduct requiring suppliers to RMP to comply with RMGC's environmental performance standards.

RMGC's view of the social and economic benefits of the RMP is described in the Community Sustainable Development Plan and EIA Chapter 4.8 – the Social and Economic Environment.

In order to achieve its commitments, RMGC acknowledges that it needs to collaborate with the Community, Authorities and civil society on issues that impact the area's development. This approach allows the Community to own, direct and control all relevant development issues in a multi-stakeholder and integrated manner.

In the spirit of that commitment, to date, RMGC has conducted extensive consultations, including 1262 individual meetings and interviews, and the distribution of questionnaires for which over 500 responses have been received, 18 focal group meetings, and 65 public debates, in addition to holding discussions with government authorities, non-governmental organisations and potentially affected stakeholders. Feedback has been used in the preparation of the Management Plans of the RMP's Environmental Impact Assessment (EIA) as well as the drafting of the Annex to the EIA.

Support of the area's sustainable development will be conducted within the framework of Partnership as promoted by organisations such as the United Nations Development Program (UNDP). For example, future socio-economic impacts mitigation and enhancement measures will be conducted under the guidance of the Roşia Montană Socio-Economic Research Centre (info@rmserc.ro), which in turn is partnered with the local authorities. This will allow a transparent evaluation of the effectiveness of sustainable development support and will provide a forum to implement necessary improvements.

Other sustainable development support partnerships are presented under the section entitled Roşia Montană Sustainable Development Programs and Partnerships further in this annex (www.rmsdpps.ro).

Beyond immediate direct and indirect benefits, the presence of the RMP as a major investment improves the area's economic climate, that will in turn encourage the development of non-mining activities. It is expected that the improved investment and economic climate will lead to business opportunities that can develop concurrent with the RMP, even as they extend well beyond economic activities related directly to mining operations. This diversification of economic development is a critical benefit of the investments generated to realise the RMP.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

References:

[1] This is an updated version of the policy already presented in the EIA management plans – it has been improved following feedback during public consultation.

[2] Economists have argued that the multiplier effect for the RMP is in the order of 1 Direct job to 30 Indirect Full Time Job Equivalents over twenty years – the methodology used may be available via a direct request to RMGC. However, the more conservative 1 : 10 Direct : Indirect figure is used here to maintain consistency with internationally accepted multiplier effects for large mining projects in impoverished regions, such as mentioned in UNCTAD (2006) Commodity policies for development: a new framework for the fight against poverty. TD/B/COM.1/75, Geneva, Switzerland. From experience, this is also the number most often quoted in Canada.

Item no.

3074

No. to identify
the
observations
received from
the public

No.
112950/
25.08.2006

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.

Proposal

The questioner expresses the following remarks:

- The gold and silver reserves from Roşia Montană represent one of the strategic reserves of România
- From economic point of view, the distribution of the benefits resulted from gold and silver extraction is opposite to the international practice
- The urbanism plans do not correspond to the project proposal;
- Within the EIA report there are no financial guarantees regarding the safety assurance of the waste deposit
- From technical point of view, the tailings management facility will be not "lined". It is situated above the Abrud town and could have a catastrophic consequence in case of failure
- The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident
- The EIA report does not assess the "zero alternative";
- The data provided by EIA report infringe the standards of environment protection

SEE THE CONTENT OF THE TYPE 2 CONTESTATION

Solution

The Romanian Mine Law, Law 85/2003, does not put any restrictions on the licenses to be given for exploration for gold and development of gold reserves. Both Romanian and foreign companies, both public and private companies, may apply to obtain a license to work a gold deposit. The Romanian state no longer has a monopoly on gold production.

We agree that Roşia Montană represents an issue of national strategic importance, designed to raise the bar for long-term investment in Romania. RMGC is the largest employer in this disadvantaged region and indeed the whole county and is the largest local taxpayer. Romania will receive about US\$ 1 billion for its share of the project, and a total of about US\$ 1.5 billion when one includes the value of goods and services procured in Romania. The project meets or exceeds all Romanian and EU standards, creates new jobs for Romanians, especially in Roşia Montană and the surrounding region, and will be a catalyst for reviving the mining sector, which is strategic to the Romanian economy and an important tool for rural development.

However, we disagree that this means the project should not be approved. RMGC has been working on this project since 1998 and has invested over US\$ 200 million to date. By the time production begins, the company will have invested almost US \$1 billion. Mining is a high risk industry; it is an industry rule of thumb that for every 1,000 projects considered, 100 merit drilling, and only one is opened as an actual productive mine. In fact, no country in the developed world is currently involved directly in assuming the risk of mining operations; instead, private capital assumes the risk and will bring the best available techniques to Romania. Approval of this project will show the world that Romania welcomes this type of productive foreign investment. The profits from the mine and the jobs provided by the mine are tangible benefits to Romania.

As regarding your request, we mention that art. 44 (3) of the Minister of Waters and Environment Protection Order no. 860/2002 on the environment impact assessment and the issuance of environmental agreements Procedures ("Order no. 860/2002") provides that *"based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report on the environmental impact assessment study with an appendix comprising solutions for the solving of the indicated issues"*.

Consequently, considering the fact that your proposal is just an allegation which does not indicate possible problems, nor provide additional information, we mention that the decision on the issuance or refusal of the environment approval cannot be made only by considering a simple proposal, but according to certain objective criteria provided by the wording of art. 45 of the Order no. 860/2002 and only after examining:

- (i) the report on the environmental impact assessment study;
- (ii) the conclusions of the parties involved in the assessment;
- (iii) the possibilities to implement the project;
- (iv) the titleholder answers to the grounded proposals/comments of the public.

*

Unlike the common international practice related to the distribution of profits, it should be noted that in relation to the Roşia Montană Project, the distribution of benefits is more favorable to Romania/Romanian State than to the investor/the titleholder of the project.

Furthermore, please observe that the Romanian government has an ownership stake in the project (without putting up any capital) and has a direct share in the profits in the expected amount of USD 306 million, along with the right to receive profit taxes, royalties and other taxes and fees. Nowhere else in the developed world does a government have a direct profit sharing interest in a mining project such as this.

*

We would like to state that your statement is erroneous. The General Urbanism Plan (PUG) of Roşia Montană approved in 2002, allows the development of Roşia Montană Project as it was presented during public debates.

At the same time, pursuant to the provisions under art. 41, 2nd paragraph from Mines Law no. 85/2003, the local authorities must alter and/or update existing territorial arrangement plans and general urban plans, in order to allow execution of all required actions to develop mining activities.

RMGC has also commenced the preparation of two zonal urbanism plans: Zonal Urbanism Plan Modification – Roşia Montană Industrial Area and Zonal Urbanism Plan – Roşia Montană Historical Area. The first urbanism plan is required by the urbanism certificate no 78 from 26.04.2006, which updates the Zonal Urbanism Plan for the Industrial Area approved in 2002. As far as the historical area is concerned, its Zonal Urbanism Plan is required by the General Urbanism Plan approved also in 2002. Both urbanism plans are pending approval and have been subject to public consultations.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial

resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit ;
- Trust funds ;
- Letter of credit ;
- Surety bonds ;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

*

Tailings Management Facility

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more

information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

Proximity to Abrud

The TMF is located approximately 2 km above the town of Abrud and therefore the design criteria for the dam have been established to address consequence of a dam failure. The proposed dam at the Tailings Management Facility (TMF) and the secondary dam at the catchment basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution.

Specifically, the facility has been designed for two Probable Maximum Precipitation (PMP) events and the associated Probable Maximum Flood (PMF). The design criterion for TMF includes storage for two PMF flood events, more rain than has ever been recorded in this area. The construction schedule for embankment and basin staging will be completed to ensure that PMP storage requirements are available throughout the project life. The Roşia Montană TMF is therefore designed to hold a total flood volume over four times greater than the Romanian government guidelines. In addition, an emergency spillway for the dam will be constructed in the unlikely event that another event occurs after the second PMP event. A spillway is only built for safety reasons to ensure proper water discharge in an unlikely event and, thus, avoid overtopping which could cause a dam breach. The TMF design therefore very significantly exceeds required standards for safety. This has been done to ensure that the risks involved in using Corna valley for tailings storage are well below what is considered safe in every day life.

Additional study was done regarding earthquakes, and, as indicated in the EIA the TMF is engineered to withstand the Maximum Credible Earthquake (MCE). The MCE is the largest earthquake that could be considered to occur at the site based on the historical record.

In addition, Section 7 of the EIA report includes an assessment of the risks cases that have been analyzed and include various dam break scenarios. Specifically, the dam break scenarios were analyzed for a failure of the starter dam and for the final dam configuration. The dam break modelling results indicate the extent of tailings run out. Based on the two cases analyzed, the tailings will not extend beyond the confluence of the Corna valley stream and the Abrud River.

However, the project recognizes that in the highly unlikely case of a dam failure that a Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.

For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.

*

The possibility for a “cyanide rain” phenomenon to occur doesn’t exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the populated areas close by industrial site will be of 4 to 80 µg/m³, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection - the national legislation and European Union (EU) legislation on the Quality of Air, don’t stipulate limit values for the population’s health protection);
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). The reactions are due to HCN being weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain not effectively reducing the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn’t comprise information related to the effect of air-borne HCN emissions on fauna and flora.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2 (Section 4.4.3).

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU Best Available Techniques (BAT) – compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worst case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1

*

The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

*

According to the provisions of art. 44 (3) of the Order of Ministry of Water and Environment Protection no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure („Order no. 860/2002”), the project titleholder prepares *„an evaluation of the public’s grounded proposals, containing solutions for the settlement of the underlined problems, which shall be submitted to the relevant public authority for environmental protection, according to the form presented in anenx no. IV.2”*.

We consider that, as no exact specification is made in regard of the enactments allegedly breached by the report to the environmental impact assessment study (EIA), the project’s titleholder cannot answer in regard of this affirmation of a generic character.

Though your statement is not grounded and/or supported in any way, the only authority empowered to analyze such breaches of the European legislation is the environmental authority. To this end, we specify the provisions of art. 45 of the Order no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure (“Order no. 860/2002”), which provide: *“after the examination of the report to the environmental impact assessment study, of the conclusions of the parties involved in the evaluation, of the possibilities to fulfill the project and the grounded evaluation of the public’s proposals, the public authority competent in regard of the environmental protection shall take the decision concerning the issuing of the environmental approval/integrated environmental approval or the grounded rejection of the project on the respective location”*.

Item no.	3075 Same as: 3075BIS, 3076	
No. to identify the observations received from the public	No. 112990/ 25.08.2006	Same as: No. 112949/25.08.2006, No. 112892/25.08.2006
Proposal	<p>The questioner requests the MEWM not to emit the environment permit for the Roşia Montană mining project.</p> <p>The questioner formulated remarks and proposals as follows:</p> <ul style="list-style-type: none"> - The total costs for the mine closure are unrealistic; - The financial guarantees have not been established; - There is no liner proposed for the tailings pond; - The EIA report does not stipulate financial guarantees destined to secure the waste rock deposit. - There is not a Safety Report submitted for the public consultation - The EIA report does not assess the "zero alternative"; - The Project poses a threat for the protected flora and fauna; - S.C. Roşia Montană Gold corporation S.A. does not comply with the provisions of the art.11 from the Mining Law 85/2003 - The EIA report does not contain an impact assessment of the phenomenon “cyanide rain” caused by the cyanide evaporation from the tailings management facility and a description of the trans-boundary impact in case of accident on some natural important areas such as Koros Maros National park from Hungary located along the Mureş valley <p>SEE TYPE 1 CONTESTATION CONTENT</p>	
Solution	<p>The mine closure costs are not unrealistic. RMGC’s closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA’s Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best practice, best available technology (BAT) and compliance with all Romanian and European Union laws and regulations.</p> <p>Closure and rehabilitation at Roşia Montană involves the following measures:</p> <ul style="list-style-type: none"> • Covering and vegetating the waste dumps as far as they are not backfilled into the open pits; • Backfilling the open pits, except Cetate pit, which will be flooded to form a lake; • Covering and vegetating the tailings pond and its dam areas; • Dismantling of disused production facilities and revegetation of the cleaned-up areas; • Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment; • Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached. <p>While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense – that incurred by the earthmoving operation required to reshape the landscape – can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful revegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the</p>	

rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.

Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production

We believe that – far from being unrealistic – our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world’s largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit;

- Trust funds;
- Letter of credit;
- Surety bonds;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

*

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline,
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

*

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The Security Report has been made available for public access by being posted at the following Internet address http://www.mmediu.ro/dep_mediu/rosia_montana_securitate.htm as well as through the printed version which could have been found at several information locations established for public hearings.

*

The EIA Report considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue. (Chapter 5 – Assessment of Alternatives)

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project.

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The impact on the protected flora and fauna will be obvious only at local level, and it will not lead to the disappearance of any species. The mining project was conceived from the onset so as to comply with the conditions and standards stipulated by the Romanian and European legislation in the field of environmental protection.

The company believes that the environmental impact generated by proposed project remains significant the more so as it will cover the pre-existing ones. But the required investments for the ecological restoration/rehabilitation of the Roşia Montană area meant to solve complex environmental issues existing at present can be developed only after the implementation of economic projects able to generate and ensure that direct and responsible measures are taken, as part of the principles that represent the basis for the sustainable development concepts. The presence of a strong economic system is the key for the implementation of clean economic processes and technologies, in full respect of the environment, which are able to remove the previous effects generated by anthropic activities.

The documentation drafted to support this mining project represents an objective justification for its implementation given that the company assumed the environmental responsibility, which is extremely complex in the Roşia Montană area.

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Given the large amount of information contained, these tables are available in the electronic format of the EIA. 6000 DVD/CDs comprising the EIA Report have been made available to the public both in English and in Romanian. Moreover, the EIA is also available on RMGC's website as well as on the websites of the Ministry of Environment and Waters Management and of the Local and Regional Environment Protection Agencies of Alba County, Cluj County and Sibiu County, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to restore/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species

ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory. [...]

Art. 6. 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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The possibility for a “cyanide rain” phenomenon to occur doesn’t exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in the atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers

of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;

- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the areas situated up to 2 km towards the north-eastern vicinity of the industrial site will be of 4 to 80 µg/m³/h, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection;
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). HCN is weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain will not effectively reduce the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effects of a potential exposure of the vegetation or ecosystems to HCN and neither the effects of the fauna health as a result of inhaling the HCN polluted air.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2.

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mures and Tisa river basins in Hungary. Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU BAT-compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1.

Item no.

3077

No. to identify the observations received from the public

No.
112951/
25.08.2006

Proposal

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.

- The questioner expresses the following remarks:
- The gold and silver reserves from Roşia Montană represent one of the strategic reserves of România
- From economic point of view, the distribution of the benefits resulted from gold and silver extraction is opposite to the international practice
- The urbanism plans do not correspond to the project proposal;
- Within the EIA report there are no financial guarantees regarding the safety assurance of the waste deposit
- From technical point of view, the tailings management facility will be not "lined". It is situated above the Abrud town and could have a catastrophic consequence in case of failure
- The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident
- The EIA report does not assess the "zero alternative";
- The data provided by EIA report infringe the standards of environment protection

SEE THE CONTENT OF THE TYPE 2 CONTESTATION

Solution

The Romanian Mine Law, Law 85/2003, does not put any restrictions on the licenses to be given for exploration for gold and development of gold reserves. Both Romanian and foreign companies, both public and private companies, may apply to obtain a license to work a gold deposit. The Romanian state no longer has a monopoly on gold production.

We agree that Roşia Montană represents an issue of national strategic importance, designed to raise the bar for long-term investment in Romania. RMGC is the largest employer in this disadvantaged region and indeed the whole county and is the largest local taxpayer. Romania will receive about US\$ 1 billion for its share of the project, and a total of about US\$ 1.5 billion when one includes the value of goods and services procured in Romania. The project meets or exceeds all Romanian and EU standards, creates new jobs for Romanians, especially in Roşia Montană and the surrounding region, and will be a catalyst for reviving the mining sector, which is strategic to the Romanian economy and an important tool for rural development.

However, we disagree that this means the project should not be approved. RMGC has been working on this project since 1998 and has invested over US\$ 200 million to date. By the time production begins, the company will have invested almost US \$1 billion. Mining is a high risk industry; it is an industry rule of thumb that for every 1,000 projects considered, 100 merit drilling, and only one is opened as an actual productive mine. In fact, no country in the developed world is currently involved directly in assuming the risk of mining operations; instead, private capital assumes the risk and will bring the best available techniques to Romania. Approval of this project will show the world that Romania welcomes this type of productive foreign investment. The profits from the mine and the jobs provided by the mine are tangible benefits to Romania.

As regarding your request, we mention that art. 44 (3) of the Minister of Waters and Environment Protection Order no. 860/2002 on the environment impact assessment and the issuance of environmental agreements Procedures ("Order no. 860/2002") provides that *"based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report on the environmental impact assessment study with an appendix comprising solutions for the solving of the indicated issues"*.

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- (i) the report on the environmental impact assessment study;
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Furthermore, please observe that the Romanian government has an ownership stake in the project (without putting up any capital) and has a direct share in the profits in the expected amount of USD 306 million, along with the right to receive profit taxes, royalties and other taxes and fees. Nowhere else in the developed world does a government have a direct profit sharing interest in a mining project such as this.

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Tailings Management Facility

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

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- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

Proximity to Abrud

The TMF is located approximately 2 km above the town of Abrud and therefore the design criteria for the dam have been established to address consequence of a dam failure. The proposed dam at the Tailings Management Facility (TMF) and the secondary dam at the catchment basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution.

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However, the project recognizes that in the highly unlikely case of a dam failure that a Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.

For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.

*

The possibility for a "cyanide rain" phenomenon to occur doesn't exist. Moreover, the specialty literature

does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the populated areas close by industrial site will be of 4 to 80 µg/m³, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection - the national legislation and European Union (EU) legislation on the Quality of Air, don't stipulate limit values for the population's health protection);
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). The reactions are due to HCN being weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain not effectively reducing the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effect of air-borne HCN emissions on fauna and flora.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as

the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2 (Section 4.4.3).

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU Best Available Techniques (BAT) – compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worst case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1

*

The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

*

According to the provisions of art. 44 (3) of the Order of Ministry of Water and Environment Protection no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure („Order no. 860/2002”), the project titleholder prepares „*an evaluation of the public’s grounded proposals, containing solutions for the settlement of the underlined problems, which shall be submitted to the relevant public authority for environmental protection, according to the form presented in anenx no. IV.2*”.

We consider that, as no exact specification is made in regard of the enactments allegedly breached by the report to the environmental impact assessment study (EIA), the project’s titleholder cannot answer in regard of this affirmation of a generic character.

Though your statement is not grounded and/or supported in any way, the only authority empowered to analyze such breaches of the European legislation is the environmental authority. To this end, we specify the provisions of art. 45 of the Order no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure (“Order no. 860/2002”), which provide: “*after the examination of the report to the environmental impact assessment study, of the conclusions of the parties involved in the evaluation, of the possibilities to fulfill the project and the grounded evaluation of the public’s proposals, the public authority competent in regard of the environmental protection shall take the decision concerning the issuing of the environmental approval/integrated environmental approval or the grounded rejection of the project on the respective location*”.

Item no. 3078 Same as: 3079, 3080, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3090

No. to identify the observations received from the public No. 111365/25.08.2006 Same as: No. 111299/25.08.2006, No. 111366/25.08.2006, No. 111147/25.08.2006, No. 111158/25.08.2006, No. 111157/25.08.2006, No. 111156/25.08.2006, No. 111155/25.08.2006, No. 111154/25.08.2006, No. 111153/25.08.2006, No. 111152/25.08.2006, No. 111151/25.08.2006, No. 111150/25.08.2006

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.

Proposal

The questioner expresses the following remarks:

- The gold and silver reserves from Roşia Montană represent one of the strategic reserves of România
- From economic point of view, the distribution of the benefits resulted from gold and silver extraction is opposite to the international practice
- The urbanism plans do not correspond to the project proposal;
- Within the EIA report there are no financial guarantees regarding the safety assurance of the waste deposit
- From technical point of view, the tailings management facility will be not "lined". It is situated above the Abrud town and could have a catastrophic consequence in case of failure
- The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident
- The EIA report does not assess the "zero alternative";
- The data provided by EIA report infringe the standards of environment protection

SEE THE CONTENT OF THE TYPE 2 CONTESTATION

The Romanian Mine Law, Law 85/2003, does not put any restrictions on the licenses to be given for exploration for gold and development of gold reserves. Both Romanian and foreign companies, both public and private companies, may apply to obtain a license to work a gold deposit. The Romanian state no longer has a monopoly on gold production.

Solution

We agree that Roşia Montană represents an issue of national strategic importance, designed to raise the bar for long-term investment in Romania. RMGC is the largest employer in this disadvantaged region and indeed the whole county and is the largest local taxpayer. Romania will receive about US\$ 1 billion for its share of the project, and a total of about US\$ 1.5 billion when one includes the value of goods and services procured in Romania. The project meets or exceeds all Romanian and EU standards, creates new jobs for Romanians, especially in Roşia Montană and the surrounding region, and will be a catalyst for reviving the mining sector, which is strategic to the Romanian economy and an important tool for rural development.

However, we disagree that this means the project should not be approved. RMGC has been working on this project since 1998 and has invested over US\$ 200 million to date. By the time production begins, the company will have invested almost US \$1 billion. Mining is a high risk industry; it is an industry rule of thumb that for every 1,000 projects considered, 100 merit drilling, and only one is opened as an actual productive mine. In fact, no country in the developed world is currently involved directly in assuming the risk of mining operations; instead, private capital assumes the risk and will bring the best available techniques to Romania. Approval of this project will show the world that Romania welcomes this type of productive foreign investment. The profits from the mine and the jobs provided by the mine are tangible benefits to Romania.

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For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, “TMF Potential Failure Scenarios” of the EIA.

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The possibility for a “cyanide rain” phenomenon to occur doesn’t exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the populated areas close by industrial site will be of 4 to 80 µg/m³, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection - the national legislation and European Union (EU) legislation on the Quality of Air, don't stipulate limit values for the population's health protection);
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). The reactions are due to HCN being weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain not effectively reducing the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effect of air-borne HCN emissions on fauna and flora.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2 (Section 4.4.3).

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU Best Available Techniques (BAT) – compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1

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The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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According to the provisions of art. 44 (3) of the Order of Ministry of Water and Environment Protection

no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure („Order no. 860/2002”), the project titleholder prepares *„an evaluation of the public’s grounded proposals, containing solutions for the settlement of the underlined problems, which shall be submitted to the relevant public authority for environmental protection, according to the form presented in anenx no. IV.2”*.

We consider that, as no exact specification is made in regard of the enactments allegedly breached by the report to the environmental impact assessment study (EIA), the project’s titleholder cannot answer in regard of this affirmation of a generic character.

Though your statement is not grounded and/or supported in any way, the only authority empowered to analyze such breaches of the European legislation is the environmental authority. To this end, we specify the provisions of art. 45 of the Order no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure (“Order no. 860/2002”), which provide: *“after the examination of the report to the environmental impact assessment study, of the conclusions of the parties involved in the evaluation, of the possibilities to fulfill the project and the grounded evaluation of the public’s proposals, the public authority competent in regard of the environmental protection shall take the decision concerning the issuing of the environmental approval/integrated environmental approval or the grounded rejection of the project on the respective location”*.

Item no.

3091

No. to identify the observations received from the public

No.
111193/
25.08.2006

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.

Proposal

The questioner expresses the following remarks:

- The gold and silver reserves from Roşia Montană represent one of the strategic reserves of România
- From economic point of view, the distribution of the benefits resulted from gold and silver extraction is opposite to the international practice
- The urbanism plans do not correspond to the project proposal;
- Within the EIA report there are no financial guarantees regarding the safety assurance of the waste deposit
- From technical point of view, the tailings management facility will be not "lined". It is situated above the Abrud town and could have a catastrophic consequence in case of failure
- The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident
- The EIA report does not assess the "zero alternative";
- The data provided by EIA report infringe the standards of environment protection

SEE THE CONTENT OF THE TYPE 2 CONTESTATION

The Romanian Mine Law, Law 85/2003, does not put any restrictions on the licenses to be given for exploration for gold and development of gold reserves. Both Romanian and foreign companies, both public and private companies, may apply to obtain a license to work a gold deposit. The Romanian state no longer has a monopoly on gold production.

Solution

We agree that Roşia Montană represents an issue of national strategic importance, designed to raise the bar for long-term investment in Romania. RMGC is the largest employer in this disadvantaged region and indeed the whole county and is the largest local taxpayer. Romania will receive about US\$ 1 billion for its share of the project, and a total of about US\$ 1.5 billion when one includes the value of goods and services procured in Romania. The project meets or exceeds all Romanian and EU standards, creates new jobs for Romanians, especially in Roşia Montană and the surrounding region, and will be a catalyst for reviving the mining sector, which is strategic to the Romanian economy and an important tool for rural development.

However, we disagree that this means the project should not be approved. RMGC has been working on this project since 1998 and has invested over US\$ 200 million to date. By the time production begins, the company will have invested almost US \$1 billion. Mining is a high risk industry; it is an industry rule of thumb that for every 1,000 projects considered, 100 merit drilling, and only one is opened as an actual productive mine. In fact, no country in the developed world is currently involved directly in assuming the risk of mining operations; instead, private capital assumes the risk and will bring the best available techniques to Romania. Approval of this project will show the world that Romania welcomes this type of productive foreign investment. The profits from the mine and the jobs provided by the mine are tangible benefits to Romania.

As regarding your request, we mention that art. 44 (3) of the Minister of Waters and Environment Protection Order no. 860/2002 on the environment impact assessment and the issuance of environmental agreements Procedures ("Order no. 860/2002") provides that *"based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report on the environmental impact assessment study with an appendix comprising solutions for the solving of the indicated issues"*.

Consequently, considering the fact that your proposal is just an allegation which does not indicate possible problems, nor provide additional information, we mention that the decision on the issuance or refusal of

the environment approval cannot be made only by considering a simple proposal, but according to certain objective criteria provided by the wording of art. 45 of the Order no. 860/2002 and only after examining:

- (i) the report on the environmental impact assessment study;
- (ii) the conclusions of the parties involved in the assessment;
- (iii) the possibilities to implement the project;
- (iv) the titleholder answers to the grounded proposals/comments of the public.

*

Unlike the common international practice related to the distribution of profits, it should be noted that in relation to the Roşia Montană Project, the distribution of benefits is more favorable to Romania/Romanian State than to the investor/the titleholder of the project.

Furthermore, please observe that the Romanian government has an ownership stake in the project (without putting up any capital) and has a direct share in the profits in the expected amount of USD 306 million, along with the right to receive profit taxes, royalties and other taxes and fees. Nowhere else in the developed world does a government have a direct profit sharing interest in a mining project such as this.

*

We would like to state that your statement is erroneous. The General Urbanism Plan (PUG) of Roşia Montană approved in 2002, allows the development of Roşia Montană Project as it was presented during public debates.

At the same time, pursuant to the provisions under art. 41, 2nd paragraph from Mines Law no. 85/2003, the local authorities must alter and/or update existing territorial arrangement plans and general urban plans, in order to allow execution of all required actions to develop mining activities.

RMGC has also commenced the preparation of two zonal urbanism plans: Zonal Urbanism Plan Modification – Roşia Montană Industrial Area and Zonal Urbanism Plan – Roşia Montană Historical Area. The first urbanism plan is required by the urbanism certificate no 78 from 26.04.2006, which updates the Zonal Urbanism Plan for the Industrial Area approved in 2002. As far as the historical area is concerned, its Zonal Urbanism Plan is required by the General Urbanism Plan approved also in 2002. Both urbanism plans are pending approval and have been subject to public consultations.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to

begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit ;
- Trust funds ;
- Letter of credit ;
- Surety bonds ;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

*

Tailings Management Facility

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as

defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

Proximity to Abrud

The TMF is located approximately 2 km above the town of Abrud and therefore the design criteria for the dam have been established to address consequence of a dam failure. The proposed dam at the Tailings Management Facility (TMF) and the secondary dam at the catchment basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution.

Specifically, the facility has been designed for two Probable Maximum Precipitation (PMP) events and the associated Probable Maximum Flood (PMF). The design criterion for TMF includes storage for two PMF flood events, more rain than has ever been recorded in this area. The construction schedule for embankment and basin staging will be completed to ensure that PMP storage requirements are available throughout the project life. The Roşia Montană TMF is therefore designed to hold a total flood volume over four times greater than the Romanian government guidelines. In addition, an emergency spillway for the dam will be constructed in the unlikely event that another event occurs after the second PMP event. A spillway is only built for safety reasons to ensure proper water discharge in an unlikely event and, thus, avoid overtopping which could cause a dam breach. The TMF design therefore very significantly exceeds required standards for safety. This has been done to ensure that the risks involved in using Corna valley for tailings storage are well below what is considered safe in every day life.

Additional study was done regarding earthquakes, and, as indicated in the EIA the TMF is engineered to withstand the Maximum Credible Earthquake (MCE). The MCE is the largest earthquake that could be considered to occur at the site based on the historical record.

In addition, Section 7 of the EIA report includes an assessment of the risks cases that have been analyzed and include various dam break scenarios. Specifically, the dam break scenarios were analyzed for a failure of the starter dam and for the final dam configuration. The dam break modelling results indicate the extent of tailings run out. Based on the two cases analyzed, the tailings will not extend beyond the confluence of the Corna valley stream and the Abrud River.

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Item no.	3092	Same as: 3093, 3094, 3095, 3096, 3097, 3098, 3099, 3100, 3101, 3102, 3103, 3104, 3105, 3106
No. to identify the observations received from the public	No. 111192/25.08.2006	Same as: No. 111191/25.08.2006, No. 111190/25.08.2006, No. 111189/25.08.2006, No. 111188/25.08.2006, No. 111186/25.08.2006, No. 111185/25.08.2006, No. 111184/25.08.2006, No. 111183/25.08.2006, No. 111182/25.08.2006, No. 111181/25.08.2006, No. 111180/25.08.2006, No. 111179/25.08.2006, No. 111178/25.08.2006, No. 111177/25.08.2006
Proposal	<p>The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.</p> <p>The questioner expresses the following remarks:</p> <ul style="list-style-type: none"> - The gold and silver reserves from Roşia Montană represent one of the strategic reserves of Romania - From economic point of view, the distribution of the benefits resulted from gold and silver extraction is opposite to the international practice - The urbanism plans do not correspond to the project proposal; - Within the EIA report there are no financial guarantees regarding the safety assurance of the waste deposit - From technical point of view, the tailings management facility will be not "lined". It is situated above the Abrud town and could have a catastrophic consequence in case of failure - The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident - The EIA report does not assess the "zero alternative"; - The data provided by EIA report infringe the standards of environment protection <p>SEE THE CONTENT OF THE TYPE 2 CONTESTATION</p>	
Solution	<p>The Romanian Mine Law, Law 85/2003, does not put any restrictions on the licenses to be given for exploration for gold and development of gold reserves. Both Romanian and foreign companies, both public and private companies, may apply to obtain a license to work a gold deposit. The Romanian state no longer has a monopoly on gold production.</p> <p>We agree that Roşia Montană represents an issue of national strategic importance, designed to raise the bar for long-term investment in Romania. RMGC is the largest employer in this disadvantaged region and indeed the whole county and is the largest local taxpayer. Romania will receive about US\$ 1 billion for its share of the project, and a total of about US\$ 1.5 billion when one includes the value of goods and services procured in Romania. The project meets or exceeds all Romanian and EU standards, creates new jobs for Romanians, especially in Roşia Montană and the surrounding region, and will be a catalyst for reviving the mining sector, which is strategic to the Romanian economy and an important tool for rural development.</p> <p>However, we disagree that this means the project should not be approved. RMGC has been working on this project since 1998 and has invested over US\$ 200 million to date. By the time production begins, the company will have invested almost US \$1 billion. Mining is a high risk industry; it is an industry rule of thumb that for every 1,000 projects considered, 100 merit drilling, and only one is opened as an actual productive mine. In fact, no country in the developed world is currently involved directly in assuming the risk of mining operations; instead, private capital assumes the risk and will bring the best available techniques to Romania. Approval of this project will show the world that Romania welcomes this type of productive foreign investment. The profits from the mine and the jobs provided by the mine are tangible benefits to Romania.</p> <p>As regarding your request, we mention that art. 44 (3) of the Minister of Waters and Environment Protection Order no. 860/2002 on the environment impact assessment and the issuance of environmental agreements Procedures ("Order no. 860/2002") provides that <i>"based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report on the environmental impact assessment study with an appendix comprising solutions for the solving of the indicated issues"</i>.</p> <p>Consequently, considering the fact that your proposal is just an allegation which does not indicate possible problems, nor provide additional information, we mention that the decision on the issuance or refusal of</p>	

the environment approval cannot be made only by considering a simple proposal, but according to certain objective criteria provided by the wording of art. 45 of the Order no. 860/2002 and only after examining:

- (i) the report on the environmental impact assessment study;
- (ii) the conclusions of the parties involved in the assessment;
- (iii) the possibilities to implement the project;
- (iv) the titleholder answers to the grounded proposals/comments of the public.

*

Unlike the common international practice related to the distribution of profits, it should be noted that in relation to the Roşia Montană Project, the distribution of benefits is more favorable to Romania/Romanian State than to the investor/the titleholder of the project.

Furthermore, please observe that the Romanian government has an ownership stake in the project (without putting up any capital) and has a direct share in the profits in the expected amount of USD 306 million, along with the right to receive profit taxes, royalties and other taxes and fees. Nowhere else in the developed world does a government have a direct profit sharing interest in a mining project such as this.

*

We would like to state that your statement is erroneous. The General Urbanism Plan (PUG) of Roşia Montană approved in 2002, allows the development of Roşia Montană Project as it was presented during public debates.

At the same time, pursuant to the provisions under art. 41, 2nd paragraph from Mines Law no. 85/2003, the local authorities must alter and/or update existing territorial arrangement plans and general urban plans, in order to allow execution of all required actions to develop mining activities.

RMGC has also commenced the preparation of two zonal urbanism plans: Zonal Urbanism Plan Modification – Roşia Montană Industrial Area and Zonal Urbanism Plan – Roşia Montană Historical Area. The first urbanism plan is required by the urbanism certificate no 78 from 26.04.2006, which updates the Zonal Urbanism Plan for the Industrial Area approved in 2002. As far as the historical area is concerned, its Zonal Urbanism Plan is required by the General Urbanism Plan approved also in 2002. Both urbanism plans are pending approval and have been subject to public consultations.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to

begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit ;
- Trust funds ;
- Letter of credit ;
- Surety bonds ;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

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Tailings Management Facility

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as

defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

Proximity to Abrud

The TMF is located approximately 2 km above the town of Abrud and therefore the design criteria for the dam have been established to address consequence of a dam failure. The proposed dam at the Tailings Management Facility (TMF) and the secondary dam at the catchment basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution.

Specifically, the facility has been designed for two Probable Maximum Precipitation (PMP) events and the associated Probable Maximum Flood (PMF). The design criterion for TMF includes storage for two PMF flood events, more rain than has ever been recorded in this area. The construction schedule for embankment and basin staging will be completed to ensure that PMP storage requirements are available throughout the project life. The Roşia Montană TMF is therefore designed to hold a total flood volume over four times greater than the Romanian government guidelines. In addition, an emergency spillway for the dam will be constructed in the unlikely event that another event occurs after the second PMP event. A spillway is only built for safety reasons to ensure proper water discharge in an unlikely event and, thus, avoid overtopping which could cause a dam breach. The TMF design therefore very significantly exceeds required standards for safety. This has been done to ensure that the risks involved in using Corna valley for tailings storage are well below what is considered safe in every day life.

Additional study was done regarding earthquakes, and, as indicated in the EIA the TMF is engineered to withstand the Maximum Credible Earthquake (MCE). The MCE is the largest earthquake that could be considered to occur at the site based on the historical record.

In addition, Section 7 of the EIA report includes an assessment of the risks cases that have been analyzed and include various dam break scenarios. Specifically, the dam break scenarios were analyzed for a failure of the starter dam and for the final dam configuration. The dam break modelling results indicate the extent of tailings run out. Based on the two cases analyzed, the tailings will not extend beyond the confluence of the Corna valley stream and the Abrud River.

However, the project recognizes that in the highly unlikely case of a dam failure that a Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.

For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.

*

The possibility for a "cyanide rain" phenomenon to occur doesn't exist. Moreover, the specialty literature does not indicate a phenomenon called "cyanide rain"; it is known and researched only the "acid rains" phenomenon that has no connection with the behavior of the cyanide compounds in atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the populated areas close by industrial site will be of 4 to 80 µg/m³, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection - the national legislation and European Union (EU) legislation on the Quality of Air, don't stipulate limit values for the population's health protection);
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). The reactions are due to HCN being weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain not effectively reducing the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effect of air-borne HCN emissions on fauna and flora.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2 (Section 4.4.3).

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU Best Available Techniques (BAT) – compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1

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The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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According to the provisions of art. 44 (3) of the Order of Ministry of Water and Environment Protection

no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure („Order no. 860/2002”), the project titleholder prepares *„an evaluation of the public’s grounded proposals, containing solutions for the settlement of the underlined problems, which shall be submitted to the relevant public authority for environmental protection, according to the form presented in anenx no. IV.2”*.

We consider that, as no exact specification is made in regard of the enactments allegedly breached by the report to the environmental impact assessment study (EIA), the project’s titleholder cannot answer in regard of this affirmation of a generic character.

Though your statement is not grounded and/or supported in any way, the only authority empowered to analyze such breaches of the European legislation is the environmental authority. To this end, we specify the provisions of art. 45 of the Order no. 860/2002 on the environmental impact assessment and environmental approval issuance procedure (“Order no. 860/2002”), which provide: *“after the examination of the report to the environmental impact assessment study, of the conclusions of the parties involved in the evaluation, of the possibilities to fulfill the project and the grounded evaluation of the public’s proposals, the public authority competent in regard of the environmental protection shall take the decision concerning the issuing of the environmental approval/integrated environmental approval or the grounded rejection of the project on the respective location”*.

Item no.

3111

No. to identify the observations received from the public

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Proposal

The questioner presents under the titles "Genocide through polluting-poising with cyanide = destruction weapon - mass annihilation - terrorist weapon, at Baia Mare" and "Gold operations in Baia Mare" articles from press as well as references regarding the ecological catastrophe caused by SC Aurul Baia Mare; specifications regarding the human rights, environment protection in mining industry.
CONTESTATION SUBMITTED DURING THE PUBLIC DEBATES; THIS IS INCLUDED INTO THE FORM WHICH IS THE ANNEX "A" AT THE SUBMITTING LETTER TO SC RMGC SA

Solution

Our project in Roşia Montană bears no comparison to the mine in Baia Mare. From design to management of the facility itself, financial assurance, public reporting, stakeholder involvement, verification procedures, and compliance – all of which are followed to the highest standards in our project – the two projects are vastly different.

Also, as the Questioner makes the charge of genocide – intentional murder on a mass scale – we note that to our knowledge no one died as a result of the Baia Mare accident.

The Romanian Government, in our Terms of Reference, requested that we follow the new European Directive on Waste Management even before it became law in Europe or Romania.

The Baia Mare accident has fundamentally changed the rules and regulations in Europe for the production, transportation and use of cyanide. The new stricter standards (toughest in world) make it impossible for any new mining project with a design and operating procedures similar to the Baia Mare mine to ever be permitted in Europe.

The Environmental Impact Assessment (EIA) study we submitted last year is the first in Romania to be EU compliant and is designed so that no exemption from the mandatory applicable legal framework is necessary. To illustrate our commitment to high standards, in many cases where Romanian and EU requirements differ, RMGC has chosen to abide by the stricter of the two. In addition, while existing gold mines will have buffer periods to come into compliance with stricter regulatory standards, our Roşia Montană Project will meet these standards from the first day of operation.

A large part of the changes since the Baia Mare accident is the introduction of the International Cyanide Management Code, to which Gabriel/RMGC is a signatory, and which stipulate strict guidelines for the production, transportation and use of cyanide. The Code also includes requirements related to financial assurance, accident prevention, emergency response, training, public reporting, stakeholder involvement and verification procedures. The International Cyanide Management Code can be referenced at www.cyanidecode.org.

As for a specific comparison, the Roşia Montană Project ("RMP") differs from Baia Mare on every key indicator – such as cyanide detoxification in the process plant, design and construction of the Tailings Management Facility (TMF) and embankments, management of the facility itself, financial assurance, public reporting, stakeholder involvement and verification procedures.

In short, the Roşia Montană Project is in no way comparable to Baia Mare. [1]

The cyanide used in the RMP will be subject to a cyanide destruction process and residual cyanide deposited with the process tailings in the Tailings Management Facility ("TMF") will degrade rapidly to levels well below maximum regulatory levels. Because detoxification will take place before the tailings are deposited to the TMF, they will contain very low concentrations of cyanide (approx. 5-7 parts per million or ppm or mg/l) which is well below the regulatory limit of 10 ppm recently adopted in the EU Mining

Waste Directive 2006/21/EC. This system of use and disposal of cyanide in gold mining is classified as Best Available Techniques by the EU.

This is a key difference with Baia Mare: Baia Mare did not have a cyanide destruction mechanism (detoxification process) in the process plant, as the RMP has. As a result, the concentration of cyanide in the tailings disposed in the TMF at Baia Mare was between 120-400 ppm of cyanide. The near-zero content of the RMP solution would therefore, in the unlikely event of a spillage, mean that the quantity of cyanide in the water would be a small fraction of what was experienced at Baia Mare.

The proposed dam at the Roşia Montană Tailings Management Facility (TMF) and the secondary dam at the intake basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution. Baia Mare was not designed to the same high standards and did not have the requisite capacity to withstand the storm event in 2000.

In order to ensure sufficient capacity to avoid overtopping, the elevation of each stage of the TMF through the life of the project is determined as the sum of the design volume required to: (1) store process water and tailings for the maximum normal operation volume of tailings and the average decant pond volume; (2) store run-off resulting from two PMP – Possible Maximum Precipitation - storms and, (3) Provide a tailings beach and additional freeboard for wave protection to the tailings volume at each stage during operations; a conservative freeboard criterion is based on the PMF storage plus 1 meter of wave run-up.

The TMF has been designed to meet the more stringent PMP event. Furthermore, in order to ensure that the TMF can store a full PMF volume at all times, it is actually designed to safely hold the flood waters from two consecutive PMP events. The Roşia Montană TMF is therefore designed to hold a total flood volume over four times greater than the Romanian government guidelines and 10 times more than the rainfall that was recorded during the Baia Mare dam failure. An emergency spillway for the dam will be constructed in the unlikely event that pumps fail due to malfunction or power interruption at the same time as the second PMP event. The TMF design therefore very significantly exceeds required standards for safety. This has been done to ensure that the risks involved in using Corna valley for tailings storage are well below what is considered safe in every day life.

The TMF for RMP will be built along the centerline method, by using borrowed rockfill and waste rock – which is BAT for the industry. The EIA describes how the dam will be built with solid rock materials, designed and engineered by MWH, one of the leading dam designers in the world and reviewed and approved by certified Romanian dam safety experts, (members of ICOLD committee). Prior to operation, the dam must be certified for operations by the National Commission for Dams Safety (CONSIB) and perform an independent audit every two years. RMGC has utilized the world's foremost experts in these areas to ensure the safety of the project's workers and the surrounding communities. Baia Mare was built of coarse tailings materials -- not rockfill -- and therefore was not able to handle the additional weight of the storm event in 2000.

RMP will have a free draining structure above the starter dam, and a system of under-drains, granular filter zones and pumps – as per BAT – to collect, control and monitor any seepage. Specifically, the tailings ponds and tailings dam have been designed to the highest standards to prevent pollution of groundwater, and to continuously monitor the groundwater and extract any seepage detected – a system verified by hydro-geologic studies. Specifically, the design features include an engineered low permeability soil liner system within the TMF basin to meet a permeability specification 10^{-8} m/s, a cut-off wall within the foundation of the starter dam to control seepage, a low permeability core for the starter dam to control seepage, and a seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline.

In terms of management, Baia Mare was rated a Category C facility – requiring no special surveillance and monitoring. Roşia Montană Project, however, is Category A, meaning that a full EIA detailing baseline conditions, project impacts and mitigation measures, is required before receipt of permits, as well as future monitoring and reporting requirements.

Finally, Baia Mare lacked a Cyanide Management Plan. By comparison, the Roşia Montană Project has a Cyanide Management Plan, in compliance with the International Cyanide Management Code (ICMC) –

BAT for today's projects.

In conclusion, we hope we have provided a detailed account of why our project in Roşia Montană isn't only vastly different from the mine in Baia Mare but that it is also designed to be a model of responsible mining, incorporating Best Available Techniques and implementing the highest environmental standards. Also, to our knowledge, no one died as a result of the Baia Mare accident.

The mine at Rio Narcea in Spain, unlike the one at Baia Mare, is comparable to ours for many reasons, as explained by presenters during the public meetings held last year. Rio Narcea's mine in Spain was permitted under European mining law, which is also the case with the Roşia Montană project, while the Baia Mare mine *was not* permitted under European law and its design *would never* be permitted under the strict rules in place in Europe today.

In fact, the Roşia Montană project is subject to even stricter standards than Rio Narcea's mine in Spain *because* of the Baia Mare accident. The Romanian Government, in our Terms of Reference, requested that we follow the new European Directive on Waste Management even before it became law in Europe or Romania.

Reference:

[1] Please see Baia Mare information sheet in the Annex, for a detailed comparison between Roşia Montană and Baia Mare, including results of the UNDP assessment of Baia Mare.

Item no.

3112

No. to identify
the
observations
received from
the public

No.
112910/
25.08.2006

Proposal

The questioner does not agree to the promotion of the Roşia Montană Project, making the following comments:

- In EIA there are no presented all the possible risks derived from this project;
- Total costs for closing the mine are unrealistic;
- There isn't until now an approved Zonal Urbanism Plan for the Protected Areas;
- The phase of public consultation and quality evaluation of the impact assessment study report begun without a valid urbanism certificate;
- Information about the foundation which RMGC will establish and subsidize is not given. This foundation follows to assume the obligations which the mining operation can not assume;
- The present urbanism plans of the Roşia Montană commune do not correspond with the mining project proposal described in EIA;
- There is no liner proposed for the tailings pond;
- The proposed waste deposits will be not constructed according to the legislation in force;
- No financial guarantees have been stipulated;
- There is not a Safety Report submitted for the public consultation and evaluation by the competent authorities
- The EIA report does not assess the "zero alternative";
- The Project poses a threat for protected flora and fauna;
- The EIA report does not refer to the impact on the listed heritage buildings of noise and vibrations caused by the mining operations;
- The public/ONGs wish to consult the contracts and agreements between Company and Romanian State;
- The Urbanism Plan has been modified without public consultation;
- From archeological point of view, the area proposed to be occupied by project was not legally investigated;
- The questioner contests the protection of the architectural and spiritual monuments with the responsibility of the state institutions for the protection operation.

SEE THE CONTENT OF THE TYPE 1 CONTESTATION

Solution

It is the nature of risk that it can be mitigated and diminished; it cannot be made to disappear. In order to put this into context, the common action of walking on the street or developing everyday activities have an accident potential. This accident potential is twice higher than within the framework of industrial activities that use hazardous substances.

A major chapter of the EIA report was dedicated to the identification of risks for the project. In addition, this chapter provides a discussion of the mitigation measures for each risk and how they were incorporated into the project designs. It is recognized that risk identification is difficult due to the number and diversity of events that can be envisioned. The EIA report cannot assume to cover all of the potential risks associated with the project. However, it has attempted to identify and address the most relevant risks. The extent of risk assessment and the intensity of the prevention and mitigation measures should be proportional to the risk involved and therefore only the risks that have been considered important have been assessed in detail. Each is described below.

In the larger sense, the entire EIA report is focused on the assessment of impacts and their associated mitigation. Specifically, Chapter 4 of the EIA presents that impact assessment of the project. The following discussion presents a summary of the impact discussed in the EIA.

As far as natural and technological risks assessments are concerned, Chapter 7, "Risk Cases", from the Report on Environmental Impact Assessment, emphasizes the fact that safety and prevention measures,

the implementation of the environmental management and risk systems are mitigating the consequences to acceptable levels as compared to the most restrictive norms, standards, the best practices or national and international recommendations in the field. The risk level has been established as moderate and so, socially acceptable. The extension of the risk assessment and the intensity of the prevention and mitigation measures of the consequences should be proportionate to the risk involved. Selection of a specific mitigation technique is depends on the analyzed accident scenario.

More detailed assessments are conducted for accident scenarios that, based on the qualitative assessment are found to be potentially major, of probability more than 10^{-6} (reduced recovery periods of 1/1,000,000) meaning that they could have major consequences therefore, elevated associated risk, a higher risk level than 9 to 12 (on a scale of 1-25). To put this in context, simply living in southern Florida rates a 25 on the risk scale.

A global assessment of the risks associated with the Roşia Montană Project is obtained by the quick environmental and health risk assessment methodology initially developed by the Italian Ministry of the Environment and the World Health Organization. Natural hazard and risk identification and analysis presents key data and information in assessing potential technological accidents. Thus:

- In designing the Tailings Management Facility, the design parameters were chosen to fully cover the characteristic seismic risk of the area. These seismic design parameters adopted for the TMF and other facilities on the proposed site result in a safety factor much greater than the minimum accepted under the Romanian and European design standards for such facilities;

- in the sector physically impacted by the Project, the risk of floods will remain very low due to the small catchments (controlled by the Roşia and Corna Streams) the area affected by the operation, and the creation of containment, diversion and drainage hydro-technical structures for storm waters on the site, and in the Abrud catchment in general;

- risks caused by meteorological events have been reviewed and used in assessing the hazards of the affected technological processes.

From the analysis of morphometrical parameters and their correlation with other sets of information on the natural slopes on and near the site shows that the (qualitatively estimated) landslide occurrence risk is low to moderate and its consequences will not cause major impacts on the structural components of the Project.

There is no significant risk associated with resource depletion. Mining activities are planned judiciously, so as to extract only the profitable gold and silver resources and only the necessary construction rock for the Project. The management of the mining concession site will minimize reserve "sterilization" (limitation of future access to the reserves).

In assessing technological hazards and risks, the quantity of hazardous substances on the site was calculated as a total and by category, as provided by the *Notification Procedure* approved by Ministry of Agriculture, Forestry, Water and Environment (MAFWE) Order 1084/2003. Based on an evaluation of hazardous substances in stock on the Project site in relation to the relevant quantities provided by the Government Decision 95/2003 which transposes the Seveso Directive, the Project ranges between the upper and the lower limits, and therefore S.C. Roşia Montană Gold Corporation S.A. is required to prepare a Report on Environmental Impact Assessment Study to be sent to the local environmental authority and the local civilian protection authority a *Safety Report* on its operations to prevent major accident risks.

In assessing the consequences of major accidents involving dangerous substances, physical-mathematical models accepted internationally and especially at EU level, and the current version of the SLAB (Canada) software have been used, the latter for the atmospheric dispersion of denser than air gases, that may handle a multitude of situations and scenarios. Similarly, the EFFECTSGis 5.5 (Netherlands) software, developed for the analysis of the effects of industrial accidents and of consequences. Several scenarios were considered in response to the internal legislative requirements, especially related to the implementation of the Internal Emergency Plans (GD 647/2005). The conclusions of the risk assessment for major accidents were:

- The total destruction of plant facilities may only be caused by terrorist attack with classic or nuclear weapons. Simultaneous damage to the HCl tank (including containment) and to the NaCN solution tank, the tanks containing enriched solution, to one or more leaching tanks, having as a result HCN dispersion into the air. At the same time, under certain situations and weather conditions

unfavorable for dispersion, people within 40 m of the emission source, surprised by the toxic cloud for more than 1 minute without respiratory protection equipment, will most certainly die. It may also be considered that, on a radius of about 310 m, persons exposed for more than 10 minutes may suffer serious intoxications that may also lead to death. Toxic effects may occur in persons up to about 2 km downwind of the process plant;

- Operating errors and/or failures in the measurement and control devices, resulting in a lower pH in the leaching tank, thickener and/or DETOX slurry and accidental emissions of hydrocyanic acid. The area affected by concentrations of 290 ppm over a 10 min exposure time is within a circle of 36 m radius and the 50 ppm IDLH threshold for 30 min exposure will be reached over an area of 157.5 m radius. The center of these circles is the middle of the CIL tanks platform;

- Accidental HCN emission from the decanter. The accident may be caused by a drop of pH in the CIL tanks combined with an overdose of flocculent solution and faulty pH monitoring systems. The area affected by concentrations of 300 ppm over a 10 min exposure time is within a circle of 65 m radius and the 50 ppm IDLH threshold for 30 min exposure will be reached over an area of 104 m radius. The center of these circles is mid-distance between the two DETOX facilities;

- Accidental HCN emission from the DETOX facility. The accident may be caused by a drop of pH in the reactors generated by an overdose of metabisulfite solution and/or copper sulphate combined with faulty pH monitoring systems. The area affected by high 1900 ppm concentrations for a 1 min exposure time is located within a 10 m radius circle. The area affected by concentrations of 300 ppm over a 10 min exposure time is within a circle of 27 m radius and the 50 ppm IDLH threshold for 30 min exposure will be reached over an area of 33 m radius. The center of these circles is mid-distance between the two DETOX facilities;

- Explosion of the LPG storage tank. The LPG storage tank has a 50 ton capacity and is located outdoors, near the heating plant. The simulation was conducted for the worst case scenario, considering an explosion of the full tank. Threshold I with heat 12.5 kW/m² is within a 10.5 m radius circle and Threshold II, of heat radiation 5 kW/m² is within a circle of 15 m radius;

- Damage and/or fire at the fuel tanks. Simulations were conducted for the worst case scenarios, considering ignition and combustion of all the diesel (fire in the tank, or in the containment vat, when full of diesel);

- Corna Dam break and breach development. Two credible accident scenarios were considered in simulating tailings flow out of the Tailings Management Facility, and six credible scenarios for the flow of decant water and tailings pore water, with significant effects on the terrestrial and aquatic ecosystems, in different weather conditions;

- Tailings flow may occur along Corna Valley, on a 800 m (starter dam break) or over 1600 m reach should the Corna dam break in its final stage;

- In regard to water quality impacts, cyanide concentrations in the water in the shape of a pollution plume may reach Arad, near the Romanian-Hungarian border on the Mureş River, in concentrations ranging between 0.03 and 0.5 mg/L. Due to inherent mathematical limitations in the models, these values and the accident effects are considered overestimated. Therefore, the results describe the "worst case scenario" based on extreme dam break assumptions for the Corna Dam.

A new and much more precise and realistic simulation has been subsequently established based on the INCA Mine model, that considers the dispersion, volatilization and breakdown of cyanides during the downstream movement of the pollutant flow (Whiteland et al., 2006).

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modeling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physical-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU BAT-compliant technology

adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modeling work is presented under the title of the Mureş River Modeling Program and the full modeling report is presented in Annex 5.1:

- Development of HCN on the tailings pond surface. Simulated emissions of HCN from the Tailings Management Facility pond surface and of their dispersion into the ambient air show that the level of $400\mu\text{ g/m}^3$ hourly average and $179\mu\text{ g/m}^3$ 8hr average will not be exceeded. These HCN concentrations are only slightly over the odor threshold (0.17ppm) and much below potentially dangerous concentrations;

- Cetate Dam break and breach development. Flood modeling was in case of a break in Cetate dam was based on the design parameters obtained from the hydrometeorological study "Assessment of rainfall intensity, frequency and runoff for the Roşia Montană Project - Radu Drobot". The breach characteristics were predicted using the BREACH model, and the maximum height of the flood wave in various flow sections was modeled using the FLDWAV software. The assumptions included a total 800000 m^3 discharge for one hour, when the peak of the flood hydrograph is about 4.9 m above base flow immediately below the dam and in the narrow Abrud valley 5.9-7,5 km downstream of the dam, while in the last section considered (10,5 km) water depth is about 2.3 m above base flow and the maximum flow rate $877\text{ m}^3/\text{s}$. Further, the broader Aries valley allows the flood wave to propagate on a significantly wider bed, which results in a highly attenuated hydrograph. These results describe the "worst case scenario" based on extreme dam break assumptions:

- Accidents during cyanide transportation. Due to the large quantities of cyanide transported (about 30t /day) the risks associated to this activity were assessed in detail using the ZHA- Zurich Hazard Analysis method. As a consequence, the optimum transport route was selected from the manufacturer to the Process Plant, e.g.;

- Cyanide transport (in solid state) will exclusively involve special SLS (Solid to Liquid System) containers, 16 tons each. The ISO compliant container will be protected by a framework with legs, which allows separation from the transport trailer for temporary storage. The wall is 5.17 mm thick, which, together with the protective framework, provides additional protection to the load in case of accident. This system is considered BAT and is currently one of the safest cyanide transportation options.

It is being mentioned the fact that the study develops the occurrence possibility of these scenarios (pages 166-171, Conclusions).

As regards the cyanides management, there is a baseline study named "Roşia Montană Golden Project, Cyanides Management Plan" prepared in compliance with the "International Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (International Cyanide management Institute) May 2002". S.C. Roşia Montană Gold Corporation is signatory to this code.

Bibliographical references for Chapter 7 "Risk Cases" are listed at page 173-176.

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RMGC's closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like. They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA's Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best

practice, best available technology (BAT) and compliance with all Romanian and European Union laws and regulations.

Closure and rehabilitation at Roşia Montană involves the following measures:

- Covering and vegetating the waste dumps as far as they are not backfilled into the open pits;
- Backfilling the open pits, except Cetate pit, which will be flooded to form a lake;
- Covering and vegetating the tailings pond and its dam areas;
- Dismantling of disused production facilities and revegetation of the cleaned-up areas;
- Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment;
- Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached.

While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense—that incurred by the earthmoving operation required to reshape the landscape—can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful re-vegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.

Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production.

We believe that—far from being too low—our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world's largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

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According to Law 5/2000, regarding the approval of the Territory Arrangement Plan – 3rd Section – protected areas (“Law 5/2000”) (article 5, paragraphs 2-3), local public authorities, with the support of the competent central public authorities, had the obligation to establish the boundaries of the protection areas for the cultural heritage elements stipulated in Annex III to the above-mentioned law. This measure should have been taken within 12 months from the effective date of Law 5/2000, based on specialized studies. For this purpose, the local public authorities had to prepare the town planning documentation and its related regulations, developed and approved according to the law. This documentation must comprise the necessary protection and conservation measures for the national cultural heritage elements located in this area.

Concurrently, Law 350/2001 on the territory arrangement and urbanism stipulates the right of legal or natural persons interested in arranging the territory, to initiate the development of urbanism plans.

In accordance with these legal provisions, in 2001, RMGC initiated the preparation of these specific town-planning documentations - the General Urbanism Plan and the Zonal Urbanism Plan. These plans have been developed by Romanian certified companies and followed the legal approval procedure. The permit for the establishment of the Roşia Montană Historical Centre Protected Area was issued by the Ministry of Culture and Religious Affairs in 2002 (permits no. 61/14.02.2002 and no. 178/20.06.2002) as part of the procedure for the approval of the town planning documentation. Based on these permits, the Ministry of Culture and Religious Affairs requested the company to develop a Zonal Urbanism Plan for the Historical Centre of Roşia Montană. Out of the 41 historical buildings in Roşia Montană, thirty-five (35) are located inside the protected area of the Roşia Montană Historical Centre.

As for the heritage elements located in the future industrial development area (6 historical buildings), these are discussed in the Industrial Zonal Urbanism Plan prepared by SC Proiect Alba SA. The regulations included in this document will contain measures for the protection of these monuments.

In conclusion, the town planning studies and the specialized studies conducted for the purpose of establishing the boundaries of the protection areas within the future mining operations perimeter are currently pending approval, in accordance with the legal provisions, by the competent institutions and committees. Please note that none of the historical houses located in the perimeter of the proposed project will be affected; on the contrary, all the 41 historic buildings will be included in a complex restoration and rehabilitation program (see the Management Plan). This program is mandatory, regardless of the implementation of the mining project, if we want to prevent these buildings from collapsing because of their advanced degradation.

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Your assertion regarding the failure to obtain an applicable urbanism certificate at the start up of the public debates and of the evaluation of the quality of the report to the environmental impact assessment, is not correct.

Thus, by the time when the public debate stage started up there was an applicable urbanism certificate and namely the urbanism certificate no. 78/26.04.2006 issued by Alba County Council. This certificate was obtained prior to the evaluation stage of the quality of the report to the environmental impact assessment which started up once the EIA was submitted to the Ministry of Environment and Water Management on the 15th May 2006.

For better understanding the applicable legal provisions and the facts developed within the mining project of Roşia Montană zone we would like to make several comments:

- The procedure for issuing the environmental permit for Roşia Montană project started up on the 14th December 2004 by submitting the technical memorandum and the urbanism certificate no.68/26.August 2004 (certificate applicable by that time). S.C. Roşia Montană Gold Corporation S.A. (RMGC) applied for and obtained a new urbanism certificate no.78/26.04.2006 issued by Alba County Council for the entire Roşia Montană Project applicable on the date of the EIA Report submission (15th May 2006) and prior to the public debate start up (June 2006);
- The Section 1 of the urbanism certificate no.78 of 26th 04.2006 entitled Work construction, position 10 – “Processing plant and associated constructions “ – including the tailing management facility which existence is compulsory for the processing plant running. The Tailing management facility is also specified on the layout plans which are integral part of the urbanism certificate and they were sealed by Alba County Council so that they cannot be modified;
- The Urbanism Certificate is an informative document and its goal is only to inform the applicant about the legal, economic and technical regime of the existing lands and buildings and to establish the urbanism requirements and the approvals necessary to obtain the construction permit (including the environmental permit) as per art.6 of Law 50/1991 referring to the completion of construction works, republished and art 27 paragraph 2 of the Norms for the application of Law 50/1991 – Official Journal 825 bis/13.09.2005).

As it is an informative document, it does not limit the number of certificates an applicant may obtain for the same land plot (art. 30 of Law no. 350/2001 regarding the territorial planning and urbanism).

*

Introduced as part of the Environmental Impact Assessment Report Study (EIA), the Roşia Montană Foundation is shifting in focus. The Community Sustainable Development Plan activities initially conceived as coming under the Foundation umbrella (business oriented activities: business incubator, business advisory center, micro-finance facility, as well as social oriented activities: education and training center) have been advanced independently, via partnerships and with community participation in decision-making – a preferable way to advance social and economic development programs.

Going forward, the Foundation will take shape around preservation, patrimony and cultural heritage

issues, with its final form determined in consultation with the community.

In terms of the philosophy that guides the company's Sustainable Development efforts, the Roșia Montană Gold Corporation (RMGC) sees itself not as principal provider, but as a partner. Community involvement is considered the starting point; over time, as the community builds the capacity to maintain programs in its own right, the company will turn over control of currently-established programs to the community and its institutions.

For more information, please see Roșia Montană Sustainable Development and the Roșia Montană Project – annex 4.

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We underline the fact that your statement is false. The General Urbanism Plan for the Roșia Montană commune, endorsed in 2002 allows the development of Roșia Montană project, as it has been presented during the public consultations.

Concurrently, pursuant to the provisions of art. 41, paragraph 2, from the Mining Law no.85/2003, the authorities from the local administration have the liability to adjust and/or update the territory arrangement plans and the general urbanism plans, in order to allow the development of all operations necessary for the development of mining activities.

RMGC has also initiated the preparation of two zonal urbanism plans: Zonal Urbanism Plan Modification – Roșia Montană Industrial Area and Zonal Urbanism Plan – Roșia Montană Historical Area. The first urbanism plan is required by the urbanism certificate no.78/26.04.2006, which updates the Zonal Urbanism Plan for the Industrial Area approved in 2002. As far as the historical area is concerned, its Zonal Urbanism Plan is required by the General Urbanism Plan approved also in 2002. Both urbanism plans are pending approval and have been subject to public consultations.

*

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin. Specifically, the Roșia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roșia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam, to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

*

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reestablish.

With respect to your comments made as regards a presumptive infringement of the provisions of Government Decision No.351/2005 (“GD 351/2005”), there are several aspects to be taken into consideration. Thus:

1. Firstly, please note that, according to the provisions of art. 6 of GD 351/2005, any activity that might determine the discharge of dangerous substances into the environment is subject to the prior approval of the water management authorities and shall comply with the provisions of the water permit issued in accordance with the relevant legislation.

The GD 351/2005 provides that the water permit shall be issued only after all technical-construction measures are implemented as prevent the indirect discharge of dangerous substances into the underground waters. The maximum discharge limits are expressly provided under GD 351/2005 and compliance with such is a condition for granting and maintaining the water permit.

In accordance with the provisions of GD 351/2005, the actual discharge limits should be authorized by the relevant authority, such process being understood by the lawmaker in consideration of the complexity and variety of industrial activities, as well as the latest technological achievements.

Therefore, please note that the EIA stage is not intended to be finalized into an overall comprehensive permit, but it represents only a part of a more complex permitting process. Please note that, according with art. 3 of GD 918/2002, the data`s level of detail provided in the EIA is the one available in the feasibility stage of the project, obviously making impossible for both the titleholder and authority to exhaust all required technical data and permits granted.

The adequate protection of the ground water shall be ensured by the terms and conditions of the water permit. The issuance of the water permit shall be performed following an individual assessment of the project, considering its particular aspects and the relevant legal requirements applicable for mining activities. Until the water permit is obtained, any allegation regarding the infringement of GD 351/2005 is obviously premature mainly because the water permit shall regulate, in accordance with the relevant legal provisions, the conditions to be observed by the developer as regards the protection of the ground water;

2. Secondly, kindly note that the complexity and specificity of mining projects generated the need of a particular legal framework. Therefore, for such projects, the reading of the legal provisions of a certain enactment should be corroborated with the relevant provisions of the other regulations applicable.

In this respect, please not that the understanding of GD 351/2005 must be corroborated with the provisions of the entire relevant legislation enforceable as regards Roşia Montană Project, with a particular accent to Directive 2006/21/EC on the management of waste from the extractive industries (“Directive 21”).

The very scope of Directive 21 is to provide a specific legal framework for the extractive wastes and waste facilities related to mining projects, considering the complexity of such projects and the particular aspects of mining activities that can not always be subject to the common regulations on waste management and landfill.

From this perspective, Directive 21 provides that, an operator of a waste facility, as such is defined thereunder (please note that the TMF proposed by RMGC is considered a “waste facility” under Directive 21), must inter alia, ensure that:

- a) *“the waste facility is [.....]designed so as to meet the necessary conditions for, in the short and long-term perspectives, preventing pollution of the soil, air, groundwater or surface water, taking into account especially Directives 76/464/EEC (1), 80/68/EEC (2) and 2000/60/EC, and ensuring efficient collection of contaminated water and leachate as and when required under the permit, and reducing erosion caused by water or wind as far as it is technically possible and economically viable;”*
- b) *“the waste facility is suitably constructed, managed and maintained to ensure its physical stability and to prevent pollution or contamination of soil, air, surface water or groundwater in the short and long-term perspectives as well as to minimize as far as possible damage to landscape.”*

In addition, it should be mentioned that RMGC was required by MWEM under the Terms of Reference, to perform the EIA considering the provisions of Directive 21 and the BAT Management of Mining Waste. The Directive 21 was intended by the EU DG of Environment to be the legislative regime applicable to sound management of mining waste throughout Europe and therefore compliance with its provisions is mandatory.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

Roşia Montană Gold Corporation (“RMGC”) has invested significant time, energy, and resources assessing the viability of a mining project in the valley of Roşia Montană. This assessment has led RMGC to conclude that Roşia Montană presents an attractive long-term development opportunity – an opinion confirmed by a variety of lending institutions, who have completed detailed reviews of the project’s design and profitability. We have every confidence that we will see the project through to the end of its projected 16-year lifespan, regardless of any fluctuations in the market price of gold.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit;
- Trust funds;
- Letter of credit;

- Surety bonds;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

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The Security Report has been made available for public access by being posted at the following Internet address http://www.mmediu.ro/dep_mediu/rosia_montana_securitate.htm as well as through the printed version which could have been found at several information locations established for public hearings.

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The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The impact on protected flora and fauna will exist only locally, but this impact will not lead to the loss of any specie. The Project has been designed even from the beginning to fully comply with the requirements and norms imposed by Romanian and European environmental legislation.

The company believes the fact that the project impact on environment remains significant, especially because covers previous impacts. But, the investments required to ecologically restore/rehabilitate Roşia Montană area in order to address current complex environmental issues, are only achievable following the implementation of some economic projects that will generate and warrant implementation of some direct and responsible actions as a component of base principles of sustainable development concepts. Clean processes and technologies may be developed only in the presence of a solid economic environment fully compliant with the environment that will also resolve previous impacts of anthropic activities.

The base documents of the Project are in fact an unbiased reason of its implementation, considering the highly complex environmental commitment within Roşia Montană area.

Some of the Roşia Montană species that are under a certain protection status stand for an insignificant percentage of the scale of populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Due to their large volume of information, the annexes of chapter 4.6 Biodiversity can be found in the electronic version of the EIA disclosed by the company both in Romanian and English through approx. 6,000 DVD/CD copies, being accessible on the company website, and on the websites of Ministry of Environment and Water Management, local and regional environmental protection agencies of Alba, Sibiu, Cluj, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to reconstruct/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory.[...]

Art. 6, 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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This statement is ungrounded, because the environmental impact assessment (EIA) process has included preliminary cumulative estimates for stationary motorized equipment and linear (vehicular) sources were prepared in order to provide an initial understanding of the potential cumulative noise and vibration impacts from background and Roşia Montană Project sources, and to guide future monitoring and measurement activities as well as the selection of appropriate Best Management Practices/Best Available

Techniques for further mitigation of the potential noise and vibration impacts from Project activities. These preliminary estimates apply to major construction activities, as well as the operation and decommissioning/closure of the mine and process plant. They are documented as data tables and isopleth maps for major noise-generating activities in selected, representative Project years; see **Tables 4.3.8 through 4.3.16** and **Exhibits 4.3.1 through 4.3.9**. All these details related to the applied assessment methodology, the input data of the dispersion model, the modeling results and the measures established for the prevention/mitigation/elimination of the potential impact for all project stages (construction, operation, closure) are included in Chapter 4, Section 4.3 Noise and Vibrations of the EIA Report.

Project Years 0, 9, 10, 12, 14, and 19 were selected for modeling because they are considered to be representative of the most significant levels of noise-generating activity. They are also the same years used for air impact modeling purposes in Section 4.2, as air and noise impacts share many of the same sources or are otherwise closely correlated. In order to more accurately reflect potential receptor impacts, all of these exhibits integrate the background traffic estimates discussed in Section 4.3.6.1.

The Project site plan and process plant area and facility drawings were used to establish the position of the noise sources and other relevant physical characteristics of the site. Receptor locations were established using background reports and project engineering and environmental documentation provided by RMGC. With this information, the source locations and receptor locations were translated into input (x, y, and z) co-ordinates for the noise-modeling program.

Tables 4.3.8 through 4.3.16 and **Exhibits 4.3.1 through 4.3.9** present the average maximum noise values likely to be experienced by the receptor community over all Project phases after incorporation of a variety of initial mitigation measures designed specifically to reduce the impacts associated with mobile and stationary machinery sources. The influence of non-mining related background (primarily traffic) noise is also included.

To evaluate the sound levels associated with haul trucks and other mobile sources crossing the site carrying excavated ore, waste rock, and soil, a noise analysis program based on the (U.S.) Federal Highway Administration's (FHWA) standard RD-77-108 [1] model was used to calculate reference noise emissions values for heavy trucks along the project roadways. The FHWA model predicts hourly L_{eq} values for free-flowing traffic conditions and is generally considered to be accurate within 1.5 decibels (dB).

The model is based on the standardized noise emission factors for different types and weights of vehicles (e.g., automobiles, medium trucks, and heavy trucks), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The emission levels of all three vehicle types increase as a function of the logarithm of their speed.

To evaluate the sound sources from the proposed mine processing facility and the semi-stationary material handling equipment (at the ore extraction, waste rock and soil stockpiling areas), a proprietary computerized noise prediction program was used by AAC to simulate and model the future equipment noise emissions throughout the area. The modeling program uses industry-accepted propagation algorithms based on the following American National Standards Institute (ANSI) and International Organization for Standardization (ISO) standards:

- *ANSI S1.26-1995 (R2004), Method for the Calculation of the Absorption of Sound by the Atmosphere;*
- *ISO 9613-1:1993, Acoustics -- Attenuation of sound during propagation outdoors-- Part 1: Calculation of the absorption of sound by the atmosphere;*
- *ISO 9613-2:1996, Acoustics -- Attenuation of sound during propagation outdoors -- Part 2: General method of calculation;*
- *ISO 3891:1978, Acoustics -- Procedure for describing aircraft noise heard on the ground.*

The calculations account for classical sound wave divergence (i.e., spherical spreading loss with adjustments for source directivity from point sources) plus attenuation factors due to air absorption, minimal ground effects, and barriers/shielding.

This model has been validated by AAC over a number of years via noise measurements at several operating industrial sites that had been previously modeled during the engineering design phases. The comparison of modeled predictions versus actual measurements has consistently shown close agreement; typically in

the range of 1 to 3 dB (A).

References:

[1] FHWA Highway Traffic Noise Prediction Model; see Federal Highway Administration Report Number FHWA-RD-77-108, USA, Washington, D.C., 1978.

A detailed presentation of blasting technology can be found in the annex 7.1 - Proposed blasting technology for the operational phase of Roşia Montană Project.

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The partnership between Gabriel Resources and Regia Autonomă a Cuprului Deva (currently, CNCAF Minvest SA) has been established based on Law no. 15/1990 on the reorganization of the state owned companies as autonomous directions and trade companies, published in the Official Gazette, Section I, no. 98/08.08.1990, as subsequently amended and supplemented. Art. 35 of this law provides the possibility of the regies autonomous to enter into partnerships with legal third parties, Romanian or foreign, for the purpose of setting up new trading companies.

Roşia Montană Gold Corporation SA was set up in 1997, according to the legal provisions in force as at that time, the setting up being made by observing all the conditions imposed by Company Law no. 31/1990 and Trade Register Law no. 26/1990, in regard of the setting up of the joint stock companies with mixed capital.

We underline that the Articles of Associations of Roşia Montană Gold Corporation SA, representing the result of the parties agreement in regard of the terms and conditions under which the partnership between the Romanian state and investor takes place represents a public document, being included in the category of documents which, as per Law no. 26/1990 on the Trade Register, are published in the Romanian Official Gazette and for which the Trade Register is obliged to issue, on the expense of the persons submitting a request, certified copies.

As for the agreement concerning the setting up of the mixed company together with Gabriel Resources Ltd., this has been expressed by the Ministry of Industry and Trade, the conditions imposed by the setting up of the mixed company being the following: (i) ensuring of the jobs at the level existing upon the conclusion of the agreement concerning the setting up of the mixed company; (ii) the expenses incurred by the fulfillment of the exploration stage should be fully supported by Gabriel; (iii) the obtaining of the approval from the ANRM by the Copper Autonomous Direction Deva and (iv) the observance of all legal provisions in force concerning the setting up of the mixed companies with foreign partners. These conditions have been fully complied withy as at the setting up of the company and during the development of its activity.

We also specify that the establishing of the shareholders' quotas to the benefits and losses of Roşia Montană Gold Corporation SA has been made by considering their contribution quota to the company's share capital. The current percentage of 80% for Gabriel Resources Ltd. and of 19.31% for CNCAF Minvest SA resulted from the initial contribution and the subsequent contributions of the shareholders to the company's share capital, in consideration also of Gabriel Resources Ltd. advancing all expenses and costs related to the development-exploitation and permitting of the Roşia Montană Mining Project.

The provisions of the Articles of Associations of Roşia Montană Gold Corporation SA on the necessary majority and quorum conditions for the decision-making process within the General Shareholders Meeting and the quotas to the benefits and losses of the company are taken from Law no. 31/1990, and no derogation exists in regard of this aspect.

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This claim is not true; the Urbanism Plan has been prepared with public consultation.

Roşia Montană Gold Corporation SA (RMGC) has requested and obtained from Alba County Council the Urbanism Certificate no. 78 of 26.04.2006, for the entire Roşia Montană mining project, including the tailings management facility. The Urbanism Certificate also stipulated the preparation of a Zonal

Urbanism Plan, to reflect all changes made to the Roşia Montană Project, following the public consultations and debates organized in relation to this project, and the consultations with the permitting authorities. This plan, entitled “Modification of the Zonal Urbanism Plan, Roşia Montană Industrial Area”, was prepared and subjected to public debate in June 2006 in accordance with the provisions of Order no.176/N/2000 issued by the Ministry of Public Works and Territory Development for the approval of the technical regulations “Guidelines regarding the methodology applied for the preparation and framework content of the Zonal Urbanism Plan” and, at present, it is pending approval.

Concerning the Roşia Montană General Urbanism Plan approved in 2002, such plan was prepared in parallel with the Zonal Urbanism Plan of 2002, all the provisions of the General Urbanism Plan being also included in the Zonal Urbanism Plan. Also, the approval procedure related to the two urbanism plans was carried out in parallel.

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Preventive archaeological researches within the Roşia Montană mining project area have been undertaken based on specific techniques, specifically trial trenches in all accessible areas that are suitable for human habitation, taking into account the bibliographical information and the observations recorded during the archaeological survey campaigns, the geophysical studies and the analyses of the photogrammetric flights. In addition, surface investigations were undertaken, where appropriate.

The archaeological researches at Roşia Montană covered a large surface and focused on the areas known to have archaeological potential. THEREFORE, ALL AREAS THAT HAVE BEEN ARCHAEOLOGICALLY DISCHARGED HAD BEEN PREVIOUSLY INVESTIGATED. All research programs, beginning with the 2004 campaign, have been undertaken in full compliance with the current legal requirements, i.e. Ministerial Order no. 2392 of 6 September 2004 on the establishment of the Archaeological Standards and Procedures by the Ministry of Culture and Religious Affairs.

The proposed gold mining project at Roşia Montană has raised a series of issues related to the rescue of the historical-archaeological heritage within the area, as well as issues related to its scientific development and also the enhancement of heritage within a museum. Given the complex difficulties encountered in this respect, the Ministry of Culture and Religious Affairs decided to initiate the “Alburnus Maior” National Research Program.

The company’s role was to provide the necessary financial resources for the assessment, research and enhancement of the archaeological remains, in full compliance with the Romanian current legislation. The development of the research and of the archaeological discharge works has been conducted through specific means and methodologies that have been adjusted to the realities of every site researched, in our case, Roşia Montană. They consisted in:

- Archives studies;
- Archaeological surveys; trial trenches;
- aerial reconnaissance/survey and aerial photo interpretation ; high resolution satellite images;
- mining archaeology studies; underground topography and 3D modeling;
- geophysical surveys;
- extensive archaeological investigations in the areas with an identified archaeological potential- this implied carrying out archaeological excavations;
- Interdisciplinary studies- sedimentology, archaeo-zoology, comparative palynology, archaeo-metallurgy, geology, mineralogy;
- Radiocarbon dating and dendrochronology;
- This research and its results were included in an integrated database;
- traditional and digital archaeological topography and development of the GIS project; generate a photo archive- both traditional and digital;
- restoration of artifacts;
- an inventory and a digital catalogue of the artifacts;
- studies conducted by specialists in order to enhance the research results - publication of monographs/scientific books and journals, exhibitions, websites, etc.

All the preventive archaeological researches undertaken at Roşia Montană since 2000 have been carried

out as part of a complex research program; permits for preventive archaeological excavations being issued in compliance with the current legislation. These archaeological investigations have been undertaken by representatives of 21 specialized institutions from Romania and 3 others from abroad, under the scientific coordination of the Romanian National Museum of History. All archaeological researches have been conducted in full compliance with the existing legislation. The investigations undertaken during each archaeological research campaign have been approved by the Ministry of Culture and Religious Affairs based on the Annual Archaeological Research Plan approved by the National Commission of Archaeology.

Under the current legislation (Ministerial Order no. 2392 of 6 September 2004 on the establishment of the Archaeological Standards and Procedures by the Ministry of Culture and Religious Affairs) the archaeologists who have conducted the research may ask that an archaeological discharge certificate be granted. Based on a complex research program, the archaeologists prepare comprehensive documentation with regard to the researched area. Upon consideration of the submitted documentation, the National Commission of Archaeology makes a decision as to whether to recommend or not the granting of the archaeological discharge certificate. In the case of the research conducted in the period 2001-2006, the archaeological discharge certificate was issued directly by the Ministry of Culture and Religious Affairs or by its local agencies.

Preventive archaeological researches at Roșia Montană have allowed the research of five Roman cremation necropolis (Tău Corna, Hop-Găuri, Țarina, Jig - Piciorag and Pârâul Porcului – Tăul Secuilor), two funerary areas (Carpeni, Nanului Valley), sacred areas (Hăbad, Nanului Valley), habitation areas (Hăbad, Carpeni, Tăul Țapului, Hop), the most significant being the Roman structures on the Carpeni Hill and the circular funerary monument at Tău Găuri. In addition, for the first time in Romania, surface investigations have been paralleled by underground investigations of Cetate, Cârnic, Jig and Orlea massifs, with important discoveries in the Piatra Corbului, area, Cătălina-Monulești gallery and the Păru Carpeni mining sector.

The research consisted of aerial photo interpretation, archaeological magnetometric studies, electrical resistivity, palynology, sedimentology, geology studies, radiocarbon and dendrochronology dating. For a better management of the research units and of the archaeological findings, data bases were used, including text and photographs-among which 4 satellite images (an archive satellite image type SPOT Panchromatic (10m) from 1997; 2 satellite images LANDSAT 7 MS (30 m), dating from 2000 and 2003; a satellite image with priority programming SPOT 5 SuperMode color (2,5 m resolution-19 July 2004); all data have been included in a comprehensive GIS program, a first in the Romanian archaeological research.

In the case of archaeological monuments that are located close to industrial facilities, plans have been redesigned to ensure that the archaeological remains in question will not be affected. Where appropriate, the archaeological monument was preserved in situ and restored, i.e. the circular funerary monument at Hop-Găuri (see The "Alburnus Maior" monograph series, volume II, Bucharest, 2004). Another example in this respect is the Carpeni Hill, designated an "archaeological " reserve, and the Piatra Corbului area. In 2004, after being thoroughly investigated, these areas have been included on the List of Historic Monuments. Add to this the areas where ancient mining remains will be preserved, such as the Cătălina Monulești gallery and the mining sector Păru Carpeni, as well as the protected area Roșia Montană Historic Center, including a number of heritage assets (35 historic monument houses).

We emphasise in this respect that the identified and researched structures have been published in preliminary form in the Archaeological Research Chronicle of Romania, after every archaeological research campaign, as well as in volume 1 of the Alburnus Maior monographic series. We mention here the areas where Roman habitation structures have been identified and researched, as well as the references to be consulted for further information: Hop-Găuri, Carpeni, Tăul Țapului (CCA 2001 (2002), p. 254-257, no. 182; 261-262, nr. 185; 264-265, no. 188; 265-266, no. 189. Alburnus Maior I, 2003, p. 45-80; 81-122; 123-148; CCA 2001 (2002), 257-261; CCA 2003 (2004) ,280-283; Alburnus Maior I, 2003, p. 387-431, 433-446, 447-467).

For further details related to the applicable legal framework, the responsibilities of the Project titleholder, or for a detailed description of the preventive archaeological researches undertaken to date and of the Cultural Heritage Management Plans, please see Annex called "Information on the Cultural heritage of Roșia and Related Management Aspects". In addition, the annex includes supplementary information with regard to the result of the researches undertaken as part of the "Alburnus Maior" National Research Program between 2001 and 2006.

In conclusion, the area mentioned by the questioner has been researched in accordance with the Romanian legal requirements, as well as with European standards and practices in the field.

Note that the type of research undertaken at Roşia Montană, known as preventive/rescue archaeological research, as well as other related heritage studies, are done everywhere in the world in close connection with the economic development of certain areas. Both the costs for the research and for the enhancement and maintenance of the preserved areas are provided by investors, in a public-private partnership set up in order to protect the cultural heritage, as per the provisions of the European Convention on the Protection of the Archaeological Heritage (Malta-1992) [1].

References:

[1]The text of the Convention is available at the following address: <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=8&DF=7/6/2006&CL=ENG>

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In 2000, in the context of the proposal of a new mining project in the Roşia Montană area, the Ministry of Culture and Religious Affairs approved a series of studies to be conducted in order to research the archaeological and architectural heritage of the area. And at the end of that year, the Design Centre for National Cultural Heritage (now the National Institute for Historical Monuments) presented the preliminary results of these researches to the National Commission for Historical Monuments and of the National Commission of Archaeology. Based on these results, in 2001, the Ministry of Culture and Religious Affairs initiated the “Alburnus Maior” National Research Program (the Order no. 2504 / 07.03.2001 of the Minister of Culture and Religious Affairs) in compliance with the Law 378/2001 (as subsequently amended by Law 462/2003 and by Law 258/2006 and Law 259/2006). Thus, since 2000, the Ministry of Culture and Religious Affairs – directly or through its subordinate institutions - has fulfilled its duties with regard to the management of the issues related to Roşia Montană’s heritage.

Thus, the preventive archaeological researches have been conducted by the representatives of 21 national institutions and 3 others from abroad under the scientific coordination of the National Museum of History of Romania. They have been carried out based on the annual approval of the National Commission of Archaeology of the Ministry of Culture and Religious Affairs. In accordance with the legislation in force, this research program is carried out with the financial support provided by RMGC (the company that plans to expand and continue to mine the gold-silver deposit in Roşia Montană). Thus, large-scale preventive investigations have been conducted or are underway in the RMP impact area. A proposal will be made based on the results thereof either for the archaeological discharge of some researched perimeters from the project perimeter or the preservation *in situ* of certain representative structures and monuments, in compliance with the legislation in force. In the case of the areas proposed for conservation and the ones for which the archaeological discharge measure was applied, the decision was made based on the surveys conducted by specialists and on the analysis of the National Commission of Archaeology. In the period 2000-2005, the mining project underwent a series of modifications designed to promote the implementation of the decision regarding the conservation of the local heritage. Examples of these include: extending the duration of the field investigations on several years (e.g. Țarina, Pârâul Porcului, Orlea) and changing the location of some elements of infrastructure in order to allow the conservation of the archaeological remains found in the Carpeni, Tău Găuri and Pietra Corbului areas.

The architectural and town-planning surveys have been conducted, in accordance with the legislation in force, by companies certified by the Ministry of Culture and Religious Affairs, while the town-planning documentations drafted by these companies and the restoration and conservation works undertaken so far have been approved by the National Commission for Historical Monuments. Thus, the town-planning documentations have been approved and implemented in accordance with current legislation, and the company has agreed to these decisions and modified the mine development plans accordingly:

Extensive ethnographic research was conducted in the Roşia Montană-Abrud-Corna area in the period 2001-2004 coordinated by a team of specialists for the Romanian Village Museum „Dimitrie Gusti” (a National Museum directly under the coordination of the Ministry of Culture and Religious Affairs). Moreover, a broad series of oral history interviews was conducted in the period 2001-2002 by the Romanian Radio Broadcasting Company through the „Gheorghe Brătianu” Oral History Centre, Bucharest

(SRR - CIO).

In compliance with the requirements of the Ministry of Environment and Waters Management and the Ministry of Culture and Religious Affairs, specific management plans have been drawn up for the management and conservation of the heritage remains from the Roşia Montană area, in the context of the implementation of the mining project. These plans have been included in the documentation prepared for the Report on the Environmental Impact Assessment Study. (see EIA Report, volume 32-33, Plan M- *Cultural Heritage Management Plan*, part I –*Management Plan for the Archaeological Heritage from Roşia Montană Area*; part II-*Management Plan for the Historical Monuments and Protected Zone from Roşia Montană*; part III- *Cultural Heritage Management Plan*).

These management plans comprise detailed presentations of the obligations and responsibilities regarding the protection and conservation of the heritage remains from the Roşia Montană area, which the company has assumed in the context of the implementation of the mining project, according to the decision of the central government. These heritage remains include: archaeological remains above and under the ground, historic buildings, protected areas, intangible heritage assets, cultural landscape items, etc. In this context, it should be noted that besides the works for the protection and preservation of the archaeological heritage, works are being carried out for the rehabilitation and conservation of the protected area Historical Centre Roşia Montană (comprising 35 historic buildings, and projects for the restoration of 11 of these buildings are currently being drafted), Tăul Mare, Tăul Brazi and Tăul Anghel as well as remains of the surface mining works from the Vaidoia area and the creation of a modern museum dedicated to the history of mining in the Apuseni Mountains area. This museum will be established in the coming years and it will include exhibitions of geology, archaeology, industrial and ethnographic heritage as well as an underground section organized around the Cătălina Monuleşti gallery.

Moreover, representatives of the Directorate for Culture, Religious Affairs and National Cultural Heritage of Alba County have visited Roşia Montană many times in order to collect information and to check the situation. The same administrative body was the intermediary for the specific stages of acquisitions of historic buildings made by RMGC. The Ministry of Culture and Religious Affairs expressed its pre-emption right regarding the acquisition of these buildings.

Note that apart from the obligations undertaken by RMGC as regards the protection and conservation of the archaeological remains and historical monuments, there are a whole series of obligations, which rest with the local public authorities from Roşia Montană and from Alba County and with the central public authorities, namely the Romanian Government.

These aspects are further detailed in the Cultural Heritage Management Plans included in the EIA Report (see EIA Report, volume 32, *Management Plan for the Archaeological Heritage from Roşia Montană Area*, pages 21-22, 47, 52-53, 66-67-Romanian version/ 22-24; 47; 55-56; 71-72 English version) and the EIA Report, volume 33- *Management Plan for the Historical Monuments and Protected Zone from Roşia Montană* pages 28-29, 48-50, 52-53, 64-65, page 98 – Annex 1- Romanian version/ 28-29; 47-50; 51-53; 65-66; 103- Annex 1- English version).

Item no.

3113

No. to identify the observations received from the public

No.
112981/
25.08.2006

Proposal

The questioner does not agree to the Roşia Montană gold and silver mining operation proposal formulating the following remarks and comments:

- Recent researches demonstrated that an exposure at different toxic substances as cyanide or pesticides is associated with an increased risk of Parkinson disease occurrence
- The presence of cyanides in big quantities within this area will be a factor of increased occurrence of Parkinson disease
- Although the project provides a technology for the cyanide destruction with sulphur dioxide, this technology itself introduces a supplementary polluting agent with direct effect on the population health
- The gold processing method by cyanidation infringes both the Directive 80/68/EEC regarding the underground water protection and Convention from Berlin which avoids the cyanide utilization at the mining operation within the EU territory
- The waters resulted from the technological process manifest grave polluting risks due to their content of heavy toxic metals dissolved from ore
- The cyanide neutralization products, although less toxic, have negative effects when are accumulated in big quantities

The human health risk assessment shows that the population groups from the areas affected by the project will not develop specific adverse health effects [1] as a result of the development of the mining operations, for the concentrations of hazardous substances predicted to occur in the environmental media and presented in the EIA report.

Exposure to various hazardous substances present in the environmental media may cause adverse effects on human health leading to higher frequency of specific diseases. However, the occurrence of such adverse effects depends strictly on the characteristics of the exposure, namely on its frequency, duration and on the levels of concentration to which the human body has been exposed. This means that the presence of a hazardous substance in one or several environmental medias does not necessarily lead to disease. The concentrations in question are predicted to be below the permissible maximum concentrations.

Reference:

[1] Chapter 6, *Risk Assessment*, pages 60-129, vol. 5, *Health Baseline Report*.

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Solution

Based on health risk assessment, Roşia Montană project will not significantly increase the frequency of specific diseases for those concentrations predicted to occur in the environment, at different stages of the operations, as they have been described in the EIA.

Three aspects have been taken into account in the assessment of risks on human health:

- The health baseline conditions with regard to the entire population from more than 40 localities, based on data collected from all general practitioners and the two local hospitals;
- The current quality of the environmental factors, before the development of mining activities;
- Predictions concerning the distribution of hazardous substances in the environmental media, elaborated for specific periods of time after the beginning of the mining project.

Consequently, the health risk assessment is based on specific data, namely the spatial distribution of the concentration of contaminants, exposure frequency and duration etc, and not on subjective data such as 'large quantities'. There were no significant correlations in terms of increasing the frequency of the investigated diseases [1] for the predicted environmental concentrations of the investigated hazardous substances within the study area.

Reference:

[1] Chapter 6, *Risk Assessment*, pages 60-129, *Cyanides*, pages 78-80, vol. 5, *Health Baseline Report*

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The health risk assessment has shown that there will be no adverse health effects on the population in the area after starting the mining activities.

The health risk assessment comprises two parts. The first part includes an exhaustive description of the health baseline data collected in more than 40 localities [1], as they are now, before the beginning of the mining operations. The data are correlated with the current state of the environmental media. The second part comprises an estimate on the frequency of the diseases researched, based on the information presented in the first part and on the estimated distribution of hazardous substances in the environmental media. This part also takes into consideration the exposure to sulphur dioxide [2]. The assessment of risks on human health, associated with exposure to a given hazardous substance, in this case sulphur dioxide, is based on complex information as the air concentrations of the toxic substance, and also other aspects such as the frequency and duration of exposure, as well as the nature and the size of the exposed population.

In conclusion, the assessment of risks associated with exposure of local population to sulphur dioxide has taken into consideration specific aspects (concentrations, distribution, population etc), and not subjective and unquantifiable aspects as are related to the sources that generate this substance. In other words, the health risk assessment took into consideration the final concentrations to which the population groups are exposed, considering all the sources that generate those concentrations.

References:

[1] Table 5-1, Subchapter 5-1, Chapter 5, *Morbidity Study*, page 52-53, vol. 5, *Health Baseline Report*.

[2] Chapter 6, *Risk Assessment*, pages 60-129, vol. 5, *Health Baseline Report*.

*

The affirmations concerning the breach of the provisions related to the interdiction of the cyanide in the mining exploitations are false. According to art. 1, the purpose of the Directive no. 88/68/EEC on the protection of the underground waters against the pollution caused by certain hazardous substances is to "limit the introduction into the underground waters of the substances classified in annex II [among which there is item 8, cyanides – emphasis added], so that the pollution with such substances be avoided". To the same end, art. 5 (2) of the same enactment provides: "the member states must take the measures they deem appropriate so that they limit any indirect discharge of the substances in the list II in the soil".

As for the "Berlin Convention", we underline that it makes no object of a provision of the Romanian legislation. Also, please note that the Ministry of Environment and Waters Management, by the Wastes Management and Hazardous Chemical Substances Direction, has requested, within the Guidelines sent to the project's titleholder, with a view to the performance of the environmental impact assessment, as per the Order of the Minister of Waters and Environmental Protection no. 860/2002 on the environmental impact assessment and environmental approval issuance Procedure, that this project "must be in compliance with the provisions of the new CE Directive on the management of the wastes in the extractive industry".

The very preamble of the Directive no. 21/2006/EC on the management of the wastes resulting from the extractive industry provides the need to reduce the concentration of cyanide in the decantation ponds, due to its toxic and harmful effects, to the lowest degree possible, by using the best techniques. According to art. 13 paragraph 6 of the above mentioned Directive, there are established the maximum limits of the cyanide concentration allowed in the decantation ponds and their periodical reduction until 2018.

In conclusion, out of the analysis of the above mentioned texts, we note a reduction or limitation of the cyanide quantity is wanted, but its use is not forbidden.

*

The ore processing operation generates metal loaded ARD. In the closed mines, (the mine existing at Roşia Montană) the generation of ARD continues and the management of ARD in modern mining industry includes the closure and post-closure stages, too.

The technological process presented in the Roşia Montană project generate two sources of metal loaded ARD:

- ARD, important source as far as flows and metallic ions concentrations are concerned;
- Tailings slurry resulting from the processing of ore using cyanides.

1. For mine waters, there's a water collection and abstraction system (in the ARD dam Cetate and seepage retention dam Cârnic), monitoring and treatment in a specially designed installation, anticipated to be developed during the construction phase of the project.

Treatment will be performed in compliance with BAT, with a large application by pH adjustment and metal precipitation in two steps using lime and carbon dioxide as insoluble compounds (hydroxides, carbonates, hydroxycarbonate).

The treated effluent will be partially reutilized in the process, after the first precipitation stage, therefore it will not get dispersed into the environment, and the final effluent that will comply with the NTPA 001 limits for metals, will be used to maintain environmental baseflows in Roşia and Corna Streams.

The slurry will be directed to the TMF.

The installation is conceived to function during the operation, closure and post-closure stages of the Roşia Montană Project.

During the last three years of the operation period, the passive treatment processes will be tested in the lagoons.

These will replace the ARD active treatment plants in the post-closure period, should the result be satisfactory and the NTPA 001 discharge standards will be complied with.

2. INCO process (oxidation with SO₂/air) and lime pH 8-10, for treatment of tailings slurry is mainly used for the destruction of cyanides.

Concomitantly, given the above conditions, precipitation of heavy metals as hydroxides takes place – Me(OH)₂ or insoluble cyanic complexes with Fe – Me₂Fe(CN)₆.

Treated slurry is discharged into the TMF, and after settling, water is recirculated in the process. The seepage from the TMF are collected in the secondary dam sump and is recirculated in the decant pond. As per the water flow described in the Project, on this route, there are no metal-loaded waters discharged into the environment, during normal operation stage.

Under abnormal operation conditions, when the storage capacity designed for the pond is exceeded, (>2 PMP successive) and if the natural dilution taking place in such extreme situation – does not provide the quality conditions requested by NTPA 001, the project provides a treatment plant for low cyanide content waters where precipitation of metals will be performed.

In conclusion, the Roşia Montană project provides realistic technical solutions to avoid metal pollution risks.

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The health risk assessment has shown that for the concentrations of cyanide and cyanide compounds that have been measured and predicted in the EIA there would be no significantly increase of the frequency of diseases within the study area [1].

Basically, it is the dose - to which the human body is exposed or which enters the human body – that determines the toxicity. As a consequence, international rules are imposing maximum permissible

concentrations for the various substances present in the environment. The concentration levels for such substances may vary as a magnitude order from one environmental factor to another depending on the probability of the human body to come in contact with that environmental media. This also applies to the various types of cyanides and their chemical compounds. In other words, it is not their simple presence in the environment (e.g. the maximum permissible concentration of cyanides in drinking water which emphasize that even this chemical substance can be found in drinking water up to a certain concentration) that may develop adverse health effects but the exposure (intensity, frequency, duration) and the characteristics of the exposed population (size, susceptibility).

References:

[1] Chapter 6, *Risk Assessment*, pages 60-129, *Cyanides*, pages 78-80, vol. 5, *Health Baseline Report*.

Item no.

3114

No. to identify the observations received from the public

No.
112980/
25.08.2006

Proposal

The questioner requests the MEWM not to issue the environment permit for Roşia Montană mining project, formulating the following remarks and comments:

- The tailings management facility is not lined, thus violating the Directive regarding the underground water protection.
- From biodiversity point of view, Roşia Montană contains important habitats and fauna and flora species which are protected in accordance with the Romanian laws and Directive 92/43/EEC regarding habitats
- There are no solutions to diminish the impact on the aquatic and terrestrial ecosystems during the construction and post-closure periods
- There is no an evaluation of the health risks generated by the losses of forest land and destruction of the vegetal belts(barrier against the polluted air)
- In the case of an ecological accident, there is no a description of the trans-boundary impact on some natural protected areas as Koros-Maros national Park from Hungary

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

Solution

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor

seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

With respect to your comments made as regards a presumptive infringement of the provisions of Government Decision No.351/2005 ("GD 351/2005"), there are several aspects to be taken into consideration. Thus:

1. Firstly, please note that, according to the provisions of art. 6 of GD 351/2005, any activity that might determine the discharge of dangerous substances into the environment is subject to the prior approval of the water management authorities and shall comply with the provisions of the water permit issued in accordance with the relevant legislation.

The GD 351/2005 provides that the water permit shall be issued only after all technical-construction measures are implemented as prevent the indirect discharge of dangerous substances into the underground waters. The maximum discharge limits are expressly provided under GD 351/2005 and compliance with such is a condition for granting and maintaining the water permit.

In accordance with the provisions of GD 351/2005, the actual discharge limits should be authorized by the relevant authority, such process being understood by the lawmaker in consideration of the complexity and variety of industrial activities, as well as the latest technological achievements.

Therefore, please note that the EIA stage is not intended to be finalized into an overall comprehensive permit, but it represents only a part of a more complex permitting process. Please note that, according with art. 3 of GD 918/2002, the data's level of detail provided in the EIA is the one available in the feasibility stage of the project, obviously making impossible for both the titleholder and authority to exhaust all required technical data and permits granted.

The adequate protection of the ground water shall be ensured by the terms and conditions of the water permit. The issuance of the water permit shall be performed following an individual assessment of the project, considering its particular aspects and the relevant legal requirements applicable for mining activities. Until the water permit is obtained, any allegation regarding the infringement of GD 351/2005 is obviously premature mainly because the water permit shall regulate, in accordance with the relevant legal provisions, the conditions to be observed by the developer as regards the protection of the ground water;

2. Secondly, kindly note that the complexity and specificity of mining projects generated the need of a particular legal framework. Therefore, for such projects, the reading of the legal provisions of a certain enactment should be corroborated with the relevant provisions of the other regulations applicable.

In this respect, please not that the understanding of GD 351/2005 must be corroborated with the provisions of the entire relevant legislation enforceable as regards Roşia Montană Project, with a particular accent to Directive 2006/21/EC on the management of waste from the extractive industries ("Directive 21").

The very scope of Directive 21 is to provide a specific legal framework for the extractive wastes and waste facilities related to mining projects, considering the complexity of such projects and the particular aspects of mining activities that can not always be subject to the common regulations on waste management and landfill.

From this perspective, Directive 21 provides that, an operator of a waste facility, as such is defined thereunder (please note that the TMF proposed by RMGC is considered a "waste facility" under Directive 21), must inter alia, ensure that:

- a) *"the waste facility is [...]designed so as to meet the necessary conditions for, in the short and long-term perspectives, preventing pollution of the soil, air, groundwater or surface water, taking into account*

especially Directives 76/464/EEC (1), 80/68/EEC (2) and 2000/60/EC, and ensuring efficient collection of contaminated water and leachate as and when required under the permit, and reducing erosion caused by water or wind as far as it is technically possible and economically viable;"

- b) *"the waste facility is suitably constructed, managed and maintained to ensure its physical stability and to prevent pollution or contamination of soil, air, surface water or groundwater in the short and long-term perspectives as well as to minimize as far as possible damage to landscape."*

In addition, it should be mentioned that RMGC was required by MWEM under the Terms of Reference, to perform the EIA considering the provisions of Directive 21 and the BAT Management of Mining Waste. The Directive 21 was intended by the EU DG of Environment to be the legislative regime applicable to sound management of mining waste throughout Europe and therefore compliance with its provisions is mandatory.

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The impact on the protected flora and fauna will be obvious only at local level, and it will not lead to the disappearance of any species. The mining project was conceived from the onset so as to comply with the conditions and standards stipulated by the Romanian and European legislation in the field of environmental protection.

The company believes that the environmental impact generated by proposed project remains significant the more so as it will add to the pre-existing ones. But the required investments for the ecological restoration/rehabilitation of the Roşia Montană area meant to solve complex environmental issues existing at present can be developed only after the implementation of economic projects able to generate and ensure that direct and responsible measures are taken, as part of the principles that represent the basis for the sustainable development concepts. The presence of a strong economic system is the key for the implementation of clean economic processes and technologies, in full respect of the environment, which are able to remove the previous effects generated by human activities.

The documentation drafted to support this mining project represents an objective justification for its implementation given that the company has assumed the environmental responsibility, which is extremely complex in the Roşia Montană area.

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Given the large amount of information contained, these tables are available in the electronic format of the EIA. 6,000 DVD/CDs comprising the EIA Report have been made available to the public both in English and in Romanian. Moreover, the EIA is also available on RMGC's website as well as on the websites of the Ministry of Environment and Waters Management and of the Local and Regional Environment Protection Agencies of Alba County, Cluj County and Sibiu County, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to reconstruct/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11.[...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory.[...]

Art. 6, 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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The solutions that will be taken to mitigate the adverse impact on aquatic and terrestrial ecosystems will consist of the following: full collection of ARD (caused by historic pollution), treatment of waters that will subsequently be discharged, and increase of forested areas within the area.

The mitigation solutions of impacts that are proposed in the Environmental Impact Assessment (EIA) and in the Biodiversity Management Plan, Plan H, are meant for project's development stages and are also considering the impacts resulted from previous activities.

The proposed Compensatory Functional Ecologic Network represents one of the direct measures proposed to mitigate impacts on aquatic and terrestrial ecosystems, and includes a structural and functional detailing (Plan H p. 20-22), as well as a scheduling of measures (Plan H p. 22-28) for the main stages of the Project (years: "0", "7", "10", "14" "16", and "19" respectively), construction, operations and a first phase of post-closure stage.

For further details please refer to Annex 2 that includes the map of habitats and the description of

Compensatory Functional Ecologic Network.

*

The health risk assessment is based on specific data only, and not on subjective aspects such as "the destruction of the green belts".

The health risk assessment has been carried out taking into account three categories of information, namely:

- the health baseline conditions, resulting from the assessment of all medical records available from all general practitioners and from the two hospitals in the area, referring to the entire population from more than 40 localities;
- the quality of the environmental media with regard to the distribution of the hazardous substances under investigation, before the development of mining operations;
- predictions on the distribution of the contaminants' concentrations in the environmental media, for different time periods during the life time of the project [1].

The health risk assessment has taken into account predictions on the distribution of hazardous substances concentration in the environmental media, as they have been presented in the EIA, and not the causes and/or factors that have contributed to those concentrations.

Reference:

[1] Chapter 6, *Risk Assessment*, pages 60-129, vol. 5, *Health Baseline Report*.

*

We appreciate that there is concern about transboundary impacts and have worked extensively with independent experts and scientists to fully assess all possibilities. These assessments, including a just-completed study of catastrophic failure scenarios by The University of Reading, have concluded that the Roşia Montană Project has no transboundary impact. A full copy of the University of Reading study can be found in the reference documents included as an annex to this report.

The Environmental Impact Assessment Report (EIA) (Chapter 10 *Transboundary Impacts*) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken by RMGC to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as cyanide, nitrate, ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial European Union Best Available

Techniques (EU BAT) - compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the Tailings Management Facility -TMF- to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the *Mureş River Modelling Program* and the full modelling report is presented as Annex 5.1.

Item no.

3115

No. to identify
the
observations
received from
the public

No.
112129/
25.08.2006

Proposal

The questioner request the MEWM not to emit the environment permit for the Roşia Montană gold and silver mining project formulating the following remarks, questions and comments:

- However much afforested would be the Piatra Albă resettlement area, the risk Of contamination with atmospheric pollutants can not decrease up to zero
- What will happen in case of ecological accident?
- The project can not offer feasible solutions for the environment problems as long as the processing is performed with cyanide, this method being forbidden all over the world
- Who still will wish to come among waste dumps as tourist or to establish any other business?
- Where will the young labor force be brought from taking into account that the health studies show an increased average age?
- The human rights within the communities from Roşia Montană are infringed.(reference to the forced resettlements)
- As regards the trans-boundary impact it is known that Hungary from beginning did not agree to this mining operation
- What will happen with employees after the mine closure? This isn't a durable development solution or a case of community rehabilitation.
- During the operations the pollution degree of the waters from area will increase. In this situation, where are the durable development and environment protection?
- The Roman galleries, which will be destroyed during exploitation, are not specified within the cultural patrimony administration.
- Within the biodiversity management plan there is a discordance regarding the biodiversity protection and preservation importance

Solution

Atmospheric pollutants are everywhere in the ambient air, with lower or higher concentrations, their emission sources being both anthropic (human activities) and natural.

In regards to the atmospheric pollutants generated by the mining activities proposed by Roşia Montană Project, we specify that Piatra Albă area, although relatively close to the industrial perimeter, is a part of its external areas and is exposed to the lowest extent to these pollutants. The sole pollutant which could influence, to a certain extent, the air quality from Piatra Albă area is represented by particles. Maximum concentrations of particles from the air within the Piatra Albă area will be of 4 up to 20 times lower than the standard values for population's health protection. Concentrations of other pollutants generated by the future mining activities into the Piatra Albă area's air will be insignificant.

Please note that in the perimeter of any locality, irrespective of the industrial activities, the air quality is influenced by inherent local sources of day-to-day life, namely: heating, cooking, traffic etc.

The polluting level of the atmosphere in Piatra Albă area, by particles, due to the future local sources together with the mining activities will be below the standard values established for the population's health protection.

It is mentioned that atmospheric pollutants occur everywhere in the ambient air, with lower or higher concentrations, their emission sources being both anthropic (human activities) and natural.

*

The term "ecological accident", although quite frequently used in the Romanian media and sometimes, in the foreign media, is not clearly defined and therefore leaves room for interpretation. We suppose that the question refers to a potential accident that might occur on the mining site or to an accident related to the

project, which could cause negative effects on the environment.

Chapter 7 in the Environmental Impact Assessment Report assesses the risk of occurrence of such accidents, based on various hypothetical scenarios. The assessment also takes into account the effects that the potential accidents could have on the environment.

Subchapter 2 mainly deals with the hazards and risks posed by natural factors.

Subchapter 3 deals with technological hazards and risks.

Subchapter 4 assesses in detail the main scenarios of occurrence of potential accidents during the three stages of the project: construction, operations and closure.

Subchapter 5 deals with transport-related hazards and risks of accidents that might occur on the site, as well as on the transportation routes used for the supply of materials and raw materials, as well as for the delivery of the products obtained to the consignee.

Major potential accidents are assessed in subchapter 6.

Subchapter 7 describes in detail the method of intervention applied in case of an accident or emergency situation.

*

The affirmation is incorrect, as the cyanide method is not forbidden. Please note that, by the Guidelines sent by the Ministry of Environment and Waters Management to the project's titleholder, with a view to the evaluation of the environmental impact, according to the provisions of the Order of the Minister of Waters and Environmental Protection no. 860/2002 on the environmental impact assessment and environmental approval issuance Procedure, it has been recommended that "*the management plan for the cyanide and the acid waters provided in the memoir must be in compliance with the provisions of the new CE Directive on the management of wastes in the extractive industry*".

The very preamble of the Directive no. 21/2006/EC on the management of the wastes resulting from the extractive industry provides the need to reduce the concentration of cyanide in the decantation ponds to the lowest degree possible, by using the best techniques. According to art. 13 paragraph 6 of the above mentioned Directive, there are established the maximum limits of the cyanide concentration allowed in the decantation ponds and their periodical reduction until 2018, but its use is not forbidden. Also, we underline that this enactment has to be adopted in the national legislations of the member states, therefore in the Romanian legislation as well, until 2008.

*

The questioner misunderstands the end-result of mining for closure and rehabilitation. In contrast to past mining in Roşia Montană, where waste dumps were often abandoned, the Roşia Montană Project (RMP) will operate against strict guidelines that require environmental remediation.

On the issue of tourism, the development of Roşia Montană's tourism potential can be done in parallel with active mining operations. Chapter 5 of the Environmental Impact Assessment Study Report (EIA) identifies and assesses project alternatives, including tourism. Importantly, the EIA concludes that the project does not preclude the development of other industries such as tourism. On the contrary, the mining project would remove some of the existing significant impediments to establishment of other industries, such as pollution, poor access and other problems that have arisen through lack of inward investment. As described in Volume 14, 4.8 Social and Economical Environment, and in Volume 31, Community Sustainable Development Management Plans, there are currently some tourism activities in Roşia Montană. However the tourism industry is not at present a significant economic driver.

As RMP affects only 4 of Roşia Montană's 16 sub-comuna, Roşia Montană could continue to develop its tourism potential. There are initiatives to do so, such as "Tourism development model and its contribution to sustainable development in Zlatna, Bucium, Roşia Montană and Baia de Aries as alternative to mono-

industrial mining activities” prepared by the National Institute for Research and Development in Tourism (INCDT) published in April 2006, just as the EIA report was being submitted to the Ministry of Environment and Water Management (MEWM).

Roşia Montană Gold Corporation (RMGC) has also commissioned a study which sets out how the potential tourism markets and how these might best be approached in an integrated project:

“From experience, tourism will be possible and profitable only when there is something to offer to tourists in terms of clean environment, proper infrastructure (good roads, accommodation, restaurants, running water, proper sewage system, waste disposal facilities, etc.), attractions (museums, other things to see such as historical monuments, etc). A mining project such as the one proposed by RMGC will provide, through taxes, and the development of service industries, the necessary funds to improve the infrastructure. Through the RMP and its heritage management plans, US\$25 million will be invested by the company in the protection of cultural heritage in such a way to support tourism. A training program will provide the necessary skills to develop tourist activities and the Roşia Montană Micro Credit will support people in starting pensions, restaurants, etc., all needed for attracting tourists. At the end of the project, there will be a new village, plus the restored old centre of Roşia Montană with a museum, hotels, restaurants and modernized infrastructure, plus restored mining galleries (e.g. Cătălina Monuleşti) and preserved monuments such as the one from Tău Găuri - all of which would serve as tourist attractions. Further to this, it is understood that the government will be acting locally to encourage economic growth. (see Roşia Montană Initial Tourism Proposals Gifford Report 13658.R01).

Clearly, planning restrictions will apply to areas that could be affected by the operation of the project, but this will be for a limited time and through its Community Sustainable Development Plan (Volume 31 of the EIA report), RMGC undertakes to lay the foundations for development of long term projects, such as tourism. The General Urbanism Plan (PUG) prepared in 2000 and approved in 2002 is a document endorsed by the Local Council after being submitted to a public consultation process within the local community. The PUG has been presented and debated within 11 council meetings and public debates. The industrial area is outlined through this PUG, but this area is not suitable for tourist activities. At the same time a protected area has also been outlined. Once the Zonal Urbanism Plan (PUZ) is endorsed by Roşia Montană Local Council, tourist activities (pensions, restaurants, etc.) may be developed within this area. The PUZ detailing the land surface required by the RMP affects only about 25% of Roşia Montană commune. Although some businesses have already been established on the remaining 75% of the Commune, once the PUZ is finalised, business start-up will be further encouraged.

There are good examples where tourism and mining has been carried on side by side. The examples of the Martha Gold Mine, Waihi in New Zealand and the Rio Narcea Gold Mine in Spain have been cited and the latter is documented in the European Union (EU) “Best Reference” document for management of mining wastes. This is because these mines are operated efficiently, safely and with care of the environment. Because these mines are located in districts with a long history of mining, visitors can be shown mining technology old and new. Roşia Montană is in a good position to take similar advantage of its mining history and RMGC proposes to manage its operations in line with this best practice. Other related examples have been discussed in Roşia Montană Initial Tourism Proposals.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

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The impacted area of the project consists not only in the Roşia Montană community, but also the neighboring localities: Abrud, Câmpeni. People from Bistra, Lupşa, Baia de Arieş and other villages are already enrolled in our training programs, so that their chances of any person regardless of age to find a job in the project will be considerable.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

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The World Bank has financed more than 500 projects during the last 10 years that required resettlement plans, many of them on a much larger scale than in Roşia Montană. Resettlement is not unusual for large projects implementation and when carried in accordance with the applicable rules and legal enactments, does not represent *per se* an infringement of any human right. As a general rule, infringements of rights should be ascertained by a final and binding decision awarded by competent courts of law.

In consideration of concerns in relation to human rights and out of respect for the residents of Roşia Montană, the company's RRAP is based on voluntary sale of property, designed under World Bank Standards. During the implementation of this management plan, the public consultation and disclosure have been the key instrument in identifying the right solutions and directions.

To put the issue of resettlement in its larger context, the construction and operation of the Roşia Montană Project requires the acquisition of properties in four of Roşia Montană's 16 sub-comuna. For the most part, therefore, property ownership in the larger part of Roşia Montană will not be affected by the project.

In order to acquire the necessary properties, the company has established a property purchase program compliant with the RRAP guidelines developed by the World Bank.

Of those properties needed but not yet acquired, 98% have been presented for surveying by their owners – a step that implies an interest in selling the property to the company. The survey rate suggests that little more than a handful of properties are held by people who might prove unwilling to entertain a sale.

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There has been, and will continue to be, extensive consultation between Romanian and Hungarian authorities regarding this project, and S.C. Roşia Montană Gold Corporation S.A. (RMGC) is committed to addressing transboundary concerns. The Environmental Impact Assessment Report (EIA) process as administered by the Ministry of Environment and Water Management (MEWM) takes into account Romania's obligations under the Espoo Convention. The RGMC project is located entirely within Romanian boundaries, and although MEWM has agreed on a consultation process, Hungary's agreement is not required.

We have worked extensively with independent experts and scientists to fully assess all transboundary issues. These assessments, including a just-completed study of catastrophic failure scenarios by The University of Reading, have concluded that the Roşia Montană Project has no transboundary impact. A full copy of the University of Reading study can be found in the reference documents included as an annex to this report.

The EIA Report (Chapter 10 *Transboundary Impacts*) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the

dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial European Union Best Available Techniques (EU BAT) -compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the Tailings Management Facility -TMF- to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as **Annex 5.1**.

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Taken over 20 years, the injection of investment into the area, if handled correctly, should stimulate other development. Roşia Montană Gold Corporation (RMGC) is committed to promoting long term development opportunities as part of the sustainable development plan.

According to the provisions of art. 52 (1) of the Mining Law no. 85/2003, the entity ceasing the mining activities should submit to the competent authority an application accompanied by the updated mining activities cessation plan, describing the details for the actions necessary to be performed for the effective mine closure. The Mine Closure Plan should contain, among others, a social protection program for the personnel.

At the time of closure, the company will do all it can for the existing workforce in providing assistance in finding alternative employment. Given the skills base and experience that the workers will have acquired, this might be jobs on other mining projects in a region with significant resource development potential. Alternatively, RMGC will provide the opportunity of re-training and support in setting up alternative businesses.

One of the most important sides of development is community and local authorities capacity building and development. Even before the project starts, the company is interested in working together with the community to finding the best development solutions for the area. Under the auspices of the United Nations Development Program (UNDP), a number of working groups will be established, one of which will be assigned the task of exploring development opportunities.

Meanwhile, a number of programs already in place aim at raising both the educational profile and the level of skills in the community, to meet the needs of the project and to encourage people think of other ways of making a living apart from mining. The vocational training program is one of them. Business training is part of the vocational training program. A business incubator is also established.

RMGC established Roşia Montană Microcredit in January 2007, as "IFN Gabriel Finance SA", to encourage the local investors. This micro lender is designed to provide funding and necessary resources to the people of Roşia Montană, Abrud, Câmpeni and Bucium. The objective is supporting local people in establishing small businesses or expanding existing ones.

The Roşia Montană Project (RMP) closure plan is also designed to return the site to productive public use.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

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In order to evaluate the residual impacts of the project on surface water quality, two modeling studies were undertaken. The first was an assessment of the ARD wastewater treatment plant discharge on general downstream watercourse quality, particularly metal concentrations and pH (Model 1). The second examined the likely concentration of the major substances introduced by the project in the watercourses, that is, calcium, sulphate (Model 2) and cyanide (Model 3).

The results of the first model were presented in Table 4.1-16, Sub chapter 4.1. of the EIA. Reduction of ARD wastewater to comply with the TN001 for all parameters except calcium and sulphate (and hence TDS) is obvious.

The lime treatment process is the most common method for treating Acid Rock Drainage from mine sites and is recognized as a Best Available Technology. However, while removing toxic metals and elevating pH, it does have the limitation of often not being able to meet calcium, sulphate and TDS standards. This is a limitation, but the net benefit of this proven and widely used treatment method results in it being the commonly accepted as a standard technology for treating effluents from mine sites with Acid Rock Drainage. In order to bring calcium and sulphate to within NTPA 001, further treatment for these parameters was included within the project design. The second model is a check on the likely residual concentrations of calcium and sulphate that are expected in the watercourses downstream of the project discharges. The modeling results are shown in Exhibits 4.1.25 and 4.1.26 from EIA.

Of the parameters analyzed, cyanide presented the most difficult analysis. Baseline cyanide concentrations for area streams and rivers are generally not available. In addition, discharges exceeding the TN001 standard of 0.1 mg/L total cyanide are not expected. Therefore, most water quality points were reported as less than 0.1 mg/L and are not shown on Exhibit 4.1.26 from EIA. The exceptions are the TMF decant pond and the Secondary Containment Dam (SCD) pond and sump.

Residual Impacts

Calcium does not exceed TN001 at any stage of the project. Sulphate concentrations are also within TN001 in the Roşia valley, but slightly above MO1146 Class IV, even so, they are less than the baseline condition. Due to elevated sulphate levels in the Abrud upstream of the Roşia confluence, downstream of the confluence the levels continue to be elevated under dry conditions.

Although elevated levels of sulphate and cyanide occur in the TMF and the SCD, through project mitigation, no exceedances of NTPA 001 or MO1146 Class IV occur downstream of these structures.

Thus, the only residual impact by the project on surface water quality occurs in the instance of overspill of the Cetate dam during a 24 hour storm of greater than 1:100yr magnitude. During such an event the pH of the overspill waters are likely to be slightly below TN001 (pH 6.5, see Sub-section 4.3.). The limestone spillway is designed as a partial mitigation against such impact.

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The following segments of Roman galleries are going to be impacted by the implementation of the Roşia Montană project:

- in the Cărnic massif – parts from the ancient mining galleries from the area known as the Big Network, which is located on the Southern slope of this massif;
- in the Cetate massif – remains of the ancient mining works conducted at surface in the Găuri area, in the South-Western part of this massif;
- in the Orlea massif – the area in under research until 2012 and consequently in this case there is no a conclusive point of view.

In order to mitigate this impact on some segments of Roman galleries, the following areas are going to be conserved *in situ*:

- in the Cărnic massif- ancient mining works above and under the ground in the Pietra Corbului area, located in the South-Western part of the massif;
- in the Lety-Cos massifs- the Cătălina Monuleşti gallery, including a Roman mine dewatering system;

- in the Văidoaia massif – remains of the ancient mining works found at surface in the Central-South part of the massif;
- in the Orlea massif- the Păru Carpeni mining sector, including a Roman mine dewatering system and the parts of the mining works served by this system.

Moreover, it is proposed to turn the the Cătălina Monulești gallery into a part of the future museum respectively as a tourism route for underground visit organized on the basis of some segments of Roman galleries preserved in situ. In addition, as is done in many European museums (reconstitution of mines as Rio Rinto in Spain or Kilhope in Wales-Great Britain), segments from the galleries whose specific characteristics do not occur in the Cătălina Monulești gallery will be reconstructed as reconstitutions at a scale of 1:1.

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There isn't any inconsistency or contradiction regarding the importance of biodiversity protection and conservation. This is emphasized by the following documents: *Baseline Conditions Report*, *Report on Environmental Impact Assessment Study*, *Biodiversity Management Plan*. After studying these documents one can see that there aren't any impediments to take measures for ecologic restoration/rehabilitation due to the low value of biodiversity. On the contrary, there are arguments supporting and justifying the need to initiate several active and responsible measures to increase the support capacity of habitats, to reconstruct them consistent with the model of several natural facieses, etc. by establishing a Compensatory Functional Ecologic Network.

Item no.	3116
No. to identify the observations received from the public	No. 112140/ 25.08.2006
Proposal	<p>The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project, formulating the following remarks, questions and comments:</p> <ul style="list-style-type: none"> - The project is contradictory to the durable development principle; - The destruction of the historical, archaeological, cultural, landscape and ethnographical heritage of the area.
Solution	<p>On the contrary, the Roşia Montană Project (RMP) will support the sustainable development of the area.</p> <p>A starting premise to this context is that RMGC is committed to ensuring that RMP will be a catalyst for local and regional economic development. It is recognised that, as with any major industrial development, impacts will be positive and negative. RMGC commits to work alone and in partnership to ensure that beneficial impacts will be maximised. RMGC will priorities a participatory approach wherever possible and will seek guidance from local and regional authorities and from the community when deciding on issues that may impact the area's development. Negative impacts will be mitigated through measures as described in the EIA report.</p> <p>RMGC recognizes that in order to ensure it meets its sustainable development commitments it must support, as a minimum, five key interrelated areas that make up the three traditional pillars of sustainable development - social, environmental and economic. These areas are presented below as five capitals of sustainable development.</p> <p>RMGC has developed its Sustainable Development Policy [1] in support of this and this is presented further on in this annex. Supporting elements are also presented, as are a set of Authority, Community, and Company initiatives within the Roşia Montană Sustainable Development Partnerships and Programs.</p> <p>1. Five Capitals of Sustainable Development</p> <p>Financial Capital</p> <p>Economic Development Impact, fiscal management, taxes</p> <ul style="list-style-type: none"> - Average of 1200 jobs during construction over 2 years, the majority of which sourced locally - 634 jobs during operations (direct employment including contracted employment for cleaning, security, transportation, and other), for 16 years, most of which sourced locally - Some 6000 indirect jobs for 20 years, locally & regionally [2] - US\$ 1billion in profit share, profit tax, royalties and other taxes and fees to Romanian local, regional & national government - US\$ 1.5 billion procuring goods & services. US\$ 400 million during construction (2 years) and US\$ 1.1 billion during production, from Romania (16 years) <p>To further promote and develop the economic opportunities presented by the RMP, RMGC is also cooperating with local stakeholders regarding setting up their own businesses:</p> <ul style="list-style-type: none"> - The set up of a micro-credit finance facility in the area to allow access to affordable financing - The set up of a business centre and incubator units, offering mentoring, training (entrepreneurial, business plans, fiscal & administrative management, etc), legal, financial & administrative advice to promote local & regional business development both to service the RMP but also to encourage entrepreneurship in preparation of the post-mining sustainable development needs, <p>Physical Capital</p> <p>Infrastructure – including buildings, energy, transport, water and waste management facilities</p> <ul style="list-style-type: none"> - Increases in revenue to government agencies, of the order of US\$ 1 billion over 20 years

- (construction + production + closure) will result in additional money the government may allocate to improving community infrastructure
- RMGC will also develop the resettlement sites of Piatra Albă and Dealul Furcilor in Alba Iulia. Piatra Albă will contain a new civic centre, commercial and residential areas. These will be transferred to the local authorities once complete. The RRAP contains full details of these initiatives

Human Capital

Health and education

- A private dispensary & health clinic in Piatra Albă (see RRAP), accessible to wider community through health insurance
- Upgrading of a wing of Abrud hospital, accessible to the wider community through the national Romanian health system
- Improvement of mobile emergency medical system in the area
- The building of a new school, residential & civic centre in Piatra Albă. This is fully described in the RRAP
- Health awareness campaigns (in partnership with local authorities & NGOs) covering: reproductive health, diet, and lifestyle amongst others
- Partnerships with education providers & NGOs concerning access to & improvement of education facilities in the area, e.g.: the NGO and local authorities lead CERT Educational Partnership (www.certapusen.ro).

Social Capital

Skills training, community relationships and social networks and the institutional capacity to support them, preservation of cultural patrimony

- Efforts to develop and promote Roşia Montană's cultural heritage for both locals and tourism – RMGC is a partner in the Roşia Montană Cultural Heritage Partnership (info@rmchp.ro)
- Providing adult education opportunities and skills enhancement including training programs, funds and scholarships, to increase employment chances both direct with RMGC and indirect – RMGC is a partner in the Roşia Montană Professional and Vocational Program (info@rmpvtp.ro)
- Programs assisting vulnerable people & groups, and to consolidate social networks particularly in Roşia Montană – RMGC is a partner in the Roşia Montană Good Neighbour Program lead by local NGO ProRoşia (info@rmgnp.ro)
- RMGC supports a NGO-lead partnership working with the youth in the area to improve and increase the capacity of the community (www.certapusen.ro).

Natural Capital

Landscape, biodiversity, water quality, ecosystems

- Measures contained in the RMP management plans and SOPs will result in mitigation of environmental impacts and conditions as identified in the EIA.
- The improved environmental condition will enhance the quality of life in Roşia Montană.
- Training & assistance in integrating environmental considerations into business plans.
- Awareness-building regarding positive environmental performance of business activities.
- Environmental standards associated with loans through the micro-credit finance facility including monitoring of environmental performance.
- Business Code of Conduct requiring suppliers to RMP to comply with RMGC's environmental performance standards.

RMGC's view of the social and economic benefits of the RMP is described in the Community Sustainable Development Plan and EIA Chapter 4.8 – the Social and Economic Environment.

In order to achieve its commitments, RMGC acknowledges that it needs to collaborate with the Community, Authorities and civil society on issues that impact the area's development. This approach allows the Community to own, direct and control all relevant development issues in a multi-stakeholder and integrated manner.

In the spirit of that commitment, to date, RMGC has conducted extensive consultations, including 1262 individual meetings and interviews, and the distribution of questionnaires for which over 500 responses have been received, 18 focal group meetings, and 65 public debates, in addition to holding discussions

with government authorities, non-governmental organisations and potentially affected stakeholders. Feedback has been used in the preparation of the Management Plans of the RMP's Environmental Impact Assessment (EIA) as well as the drafting of the Annex to the EIA.

Support of the area's sustainable development will be conducted within the framework of Partnership as promoted by organisations such as the United Nations Development Program (UNDP). For example, future socio-economic impacts mitigation and enhancement measures will be conducted under the guidance of the Roşia Montană Socio-Economic Research Centre (info@rmserc.ro), which in turn is partnered with the local authorities. This will allow a transparent evaluation of the effectiveness of sustainable development support and will provide a forum to implement necessary improvements.

Other sustainable development support partnerships are presented under the section entitled Roşia Montană Sustainable Development Programs and Partnerships further in this annex (www.rmsdpps.ro).

Beyond immediate direct and indirect benefits, the presence of the RMP as a major investment improves the area's economic climate, that will in turn encourage the development of non-mining activities. It is expected that the improved investment and economic climate will lead to business opportunities that can develop concurrent with the RMP, even as they extend well beyond economic activities related directly to mining operations. This diversification of economic development is a critical benefit of the investments generated to realise the RMP.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

References:

[1] This is an updated version of the policy already presented in the EIA management plans – it has been improved following feedback during public consultation.

[2] Economists have argued that the multiplier effect for the RMP is in the order of 1 Direct job to 30 Indirect Full Time Job Equivalents over twenty years – the methodology used may be available via a direct request to RMGC. However, the more conservative 1 : 10 Direct : Indirect figure is used here to maintain consistency with internationally accepted multiplier effects for large mining projects in impoverished regions, such as mentioned in UNCTAD (2006) Commodity policies for development: a new framework for the fight against poverty. TD/B/COM.1/75, Geneva, Switzerland. From experience, this is also the number most often quoted in Canada.

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The implementation of the mining project does not entail the destruction or abandonment of the heritage values from Roşia Montană. After considering the importance of cultural heritage from Roşia Montană and current legislation, S.C. Roşia Montană Gold Corporation S.A. allocated US\$ 10 million budget to conduct the archaeological researches between 2001 and 2006, and RMGC estimates it will invest US\$ 25 million to research, conserve and restore the cultural heritage of Roşia Montană in the future.

Based upon the research and analyses of experts, the Roman galleries from Roşia Montană are considered to be important but not unique. An inventory of the Roman mining sites from the Transylvania and Banat regions was conducted for the Environmental Impact Assessment (EIA). This inventory shows that, from the perspective of history of Roman mining operations existing throughout the entire Roman Empire and especially in Dacia, Roşia Montană is not unique. There are at least 20 sites with similar characteristics to this site. From these 20 sites, the ones from Ruda Brad, Bucium – Vulcoi Corabia and Haneş – Amlaşul Mare areas have already provided definite data for an archaeological potential comparable to that of the ancient Alburnus Maior.

Prior to 1999, the Roman galleries from Roşia Montană hadn't been surveyed by experts on mining archaeology, although they had been known for almost 150 years. Effectively, this type of archaeological remains had been rarely studied in Romania prior to 2000. Neither other archaeological remains from area do not benefit until 2000 by an adequate research, many from the information regarding this site originating from chance finds occasioned by works of agriculture, road constructions and mining infrastructure.

Today, after ample research developed during the last 8 years, the nature, specific features and the heritage assets distribution are well known – archaeological sites, historical monument buildings, as well as churches and cemeteries from Roșia Montană. The ample researches and heritage studies carried out during the period 2000-2006 allowed a comprehensive image of these assets belonging to the cultural national heritage and of the areas with spiritual significance, as well as the adoption of specific measures as regards their protection and enhancement.

Starting in 1999 and still continuing, the mining archaeology researches conducted by a specific team from University Toulouse Le Mirail (France) coordinated by Beatrice Cauuet, PhD have been intended to establish for the first time in Romania a detailed study of these types of archaeological remains, of ancient mining galleries from Roman and later periods. Detailed heritage researches and studies conducted between 2000 and 2006 have allowed us to outline a comprehensive picture of these assets that belong to the national cultural heritage, and also to adopt several specific measures for their protection.

The survey of these structures led to a better understanding of them and at the same time has led to several pertinent decisions on their conservation and enhancement. Based on the researches conducted so far (specifically for Cetate, Cârnic, and Jig, and currently in development for Orlea) the following decisions for conservation and development of the following sites have been taken:

- Cătălina Monulești Gallery – a gallery located in the Historic Center of Roșia Montană, where a significant series of wax-coated tablets has been discovered together with an ancient mine dewatering system;
- Păru Carpeni mining sector – located in the SE area of Orlea, where a system of overlapped chambers has been discovered that was equipped with Roman wooden mine dewatering installations (wheels, channels, etc.);
- Piatra Corbului area – located in the SE area of Cârnic, where traces of mining operations excavated through the fire and water technique have been discovered dating to Roman and medieval times.
- Văidoaia area – within the NE area of Roșia Montană, where areas of open pit mining operations are maintained, dating as back as the Roman period.

Through the preventive archaeological researches conducted between 2001 and 2006, 13 archaeological sites have been outlined and researched, and for some of them, a decision regarding their archaeological discharge has been taken upon completion of exhaustive researches, and in other cases a decision regarding their in-situ conservation has been taken – for example the funerary monument from Tăul Găuri, the Roman remains existing at Carpeni Hill; and the Orlea area will be researched in detail between 2007 and 2012 through surface and underground investigations.

Reopening, consolidation and development works have been scheduled for the historic mining galleries that date to Roman times and have been discovered within the mining sectors of Cătălina Monulești and Păru Carpeni. These works will allow their in-situ conservation and development for tourist visits. This decision has considered the value and the significance of the exceptional archaeological remains surviving in these galleries, and the Roman wood installations that were created during Roman times for draining the mine waters (the so-called “Roman Wheels”). At the same time, Cătălina Monulești Gallery is the famous one where the most significant series of wax-coated tablets were discovered in the middle of 19th Century (according to historic archive resources, this refers to about 11 pieces from a total of 32 artifacts).

Most of the Roman mining works from Cârnic, (but also from other mining sectors) are only accessible under difficult conditions by experts; public access being practically impossible. Moreover, the safety requirements for the development of similar museum activities from the EU (that will become laws in Romania) are not compatible with the transformation of the Roman galleries that are permanently exposed to several serious risk factors within an area designated for tourism. We emphasize that major parts of the Roman galleries will be preserved in situ. As a measure of minimizing this impact, the experts have proposed establishing a three-dimensional computer model of these structures based on full research and publishing the results, as well as creating 1:1 replicas of these galleries within the proposed museum from Roșia Montană.

In Orlea, the researches conducted so far have been preliminary in nature. Orlea is the only area where currently there are antic mining vestiges, according to LMI 2004 Roman Mining Operations from Alburnus Maior, Orlea area (code LMI AB-I-m-A-00065.02). The detailed research of this area is scheduled

for 2007 – 2012 and upon completion, all necessary measures may be taken as required by the law: either for in situ preservation of several parts or the application for the archaeological discharge procedure for some of the remains. Further details regarding chance archaeological discoveries and preliminary archaeological researches (surface and underground) conducted at Orlea have been published in the EIA of the Roșia Montană Project, vol. 6 – Cultural Heritage Baseline Report, Annex I, p. 231-234. It is important to mention that the report states: “*Site development plans for the Project will not result in impacts or construction activities in the Orlea area, which will be investigated starting with 2007. As a result, construction activities will not begin in these areas until proper archaeological investigation consistent with Romanian law and international best practice is concluded.*” (Cultural Heritage Baseline Report, vol. 6, p. 46).

Taking into account the results of the research, the opinions of experts, and the decisions of competent authorities, a budget of US \$25 million has been established by the company to conduct further researches, to preserve and restore the cultural heritage of Roșia Montană during the following years, as part of the implementation of the mining project, as stated by the EIA in May 2006 (see Report of the Environmental Impact Assessment Study, vol. 32, Cultural Heritage Management Plan for Roșia Montană area, p. 84-85). The proposals include the continuation of researches within the Orlea area; especially the creation of a **modern Museum of Mining** with exhibits of **geology, archeology, industrial heritage and ethnography**; the development of tourist access to the **Cătălina-Monulești** Gallery; and to the monument from **Tău Găuri**; together with the **conservation and restoration of the 41 historical monument buildings and of Roșia Montană Historic Center**.

For a further synopsis on the researches and on the main discoveries related to the historic galleries from Roșia Montană, and to read the conclusions of experts on this matter, and also the assessments performed in order to establish a tourist route dedicated to historic mining structures from Cărnic, and the opinions issued by Mr. Edward O’Hara, General Rapporteur on the Cultural Heritage of the Parliamentary Assembly of European Council, please see the annexes entitled “Information on Roșia Montană Cultural Heritage and Related Management Aspects” as well as the annexed Romanian version of the O’Hara Report. Detailed information regarding the complex issues of surveying ancient mining works from Roșia Montană, the results and the potential subsequent developments is available in the EIA of Roșia Montană Project, vol. 6 – Baseline Conditions Report, p. 32, 35-58, 83-109.

To conclude, under no circumstances was the destruction of cultural heritage from Roșia Montană or mere replacement of some original remains with replicas discussed. The archaeological research performed at Roșia Montană, usually known as preventive/rescue archaeology, as well as the heritage related studies are conducted everywhere in the world in close connection with the economic interest for certain areas, and its related costs including the development or maintenance costs of the preserved areas are ensured by those who are making the prospective investment. Therefore, a public-private partnership is established to protect cultural heritage pursuant to the provisions of Malta Convention (1992) on the protection of archaeological heritage [1].

It must be emphasized that in addition to the commitments assumed by RMGC with respect to the protection and conservation of archaeological remains and historic monuments, an entire series of duties belong to local public authorities from Roșia Montană and Alba County, together with central public authorities, and Romanian Government respectively. The Cultural Heritage Management Plans included in the report on the EIA Study provide clarifications on these issues. (see Report on EIA Study, volume 32, Archaeological Heritage Management Plan for Roșia Montană area, p. 22-24, 49, 55-56, 71-72 and the Report on EIA Study, volume 33, Management Plan for Historic Monuments and Protected areas of Roșia Montană area, p. 28-29, 47-50, 51-53, 65-66, p. 103 – Annex 1).

All of the commitments assumed publicly by the company are detailed in the report on EIA Study, volume 33, Cultural Heritage Management Plan.

References:

[1] The text of the Convention is available at the following web page: <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=8&DF=7/6/2006&CL=ENG>

Item no.

3117

No. to identify the observations received from the public

No.
112996/
25.08.2006

Proposal

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project, formulating the following remarks, questions and comments:

- The tailings management facility is not lined and constitutes a danger for the Abrud town in case of failure;
- The total costs for the mine closure are unrealistic;
- The project represents a threatening to the protected flora and fauna infringing the EU Directive regarding habitats;
- The phase of public consultation and quality evaluation of the impact assessment study report begun without a valid urbanism certificate;
- The company could not find an insurer for the mining project.
- The EIA report does not assess the "zero alternative";
- The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident.

Tailings Management Facility

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or "the facility") has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

Solution

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, "The Tailings Facility Management Plan" for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any

seepage that does extend beyond the dam centerline;

- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

Proximity to Abrud

The TMF is located approximately 2 km above the town of Abrud and therefore the design criteria for the dam have been established to address consequence of a dam failure. The proposed dam at the Tailings Management Facility (TMF) and the secondary dam at the catchment basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution.

Specifically, the facility has been designed for two Probable Maximum Precipitation (PMP) events and the associated Probable Maximum Flood (PMF). The design criterion for TMF includes storage for two PMF flood events, more rain than has ever been recorded in this area. The construction schedule for embankment and basin staging will be completed to ensure that PMP storage requirements are available throughout the project life. The Roşia Montană TMF is therefore designed to hold a total flood volume over four times greater than the Romanian government guidelines. In addition, an emergency spillway for the dam will be constructed in the unlikely event that another event occurs after the second PMP event. A spillway is only built for safety reasons to ensure proper water discharge in an unlikely event and, thus, avoid overtopping which could cause a dam breach. The TMF design therefore very significantly exceeds required standards for safety. This has been done to ensure that the risks involved in using Corna valley for tailings storage are well below what is considered safe in every day life.

Additional study was done regarding earthquakes, and, as indicated in the EIA the TMF is engineered to withstand the Maximum Credible Earthquake(MCE). The MCE is the largest earthquake that could be considered to occur at the site based on the historical record.

In addition, Section 7 of the EIA report includes an assessment of the risks cases that have been analyzed and include various dam break scenarios. Specifically, the dam break scenarios were analyzed for a failure of the starter dam and for the final dam configuration. The dam break modelling results indicate the extent of tailings run out. Based on the two cases analyzed, the tailings will not extend beyond the confluence of the Corna valley stream and the Abrud River.

However, the project recognizes that in the highly unlikely case of a dam failure that a Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.

For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, “TMF Potential Failure Scenarios” of the EIA.

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The mine closure costs are not unrealistic. RMGC’s closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA’s Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best practice, best available technology (BAT) and compliance with

all Romanian and European Union laws and regulations.

Closure and rehabilitation at Roşia Montană involves the following measures:

- Covering and vegetating the waste dumps as far as they are not backfilled into the open pits;
- Backfilling the open pits, except Cetate pit, which will be flooded to form a lake;
- Covering and vegetating the tailings pond and its dam areas;
- Dismantling of disused production facilities and revegetation of the cleaned-up areas;
- Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment;
- Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached.

While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense – that incurred by the earthmoving operation required to reshape the landscape – can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful revegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.

Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production

We believe that – far from being unrealistic – our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world's largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

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The impacts on protected flora and fauna will occur only locally, but these impacts will not lead to the disappearance of any species. The mining project was designed even from the beginning to meet all Romanian and European environmental legal requirements.

The company believes that the project's impact on the environment remains significant, especially because the project will cover previous environmental impact. But, the investments required to restore/rehabilitate Roşia Montană area in order to resolve current complex environmental issues, are possible only after the implementation of economic projects capable of generating and warranting responsible and direct courses of action as a base component of sustainable development concepts. Clean economic processes and technologies may develop only in the presence of a solid economic system, in a total respect towards environment that will resolve even previous impacts caused by all anthropic activities.

Project's base documents are an unbiased reasoning of its implementation, taking into account the complex environmental commitments assumed for Roşia Montană area.

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Due to the large amount of information, these tables are available in the electronic format of EIA. 6,000 electronic copies of EIA Report presented on DVD/CDs have been disclosed to the public both in English and Romanian. Moreover, the EIA is also available on RMGC's website and on the websites of Ministry of

Environment and Waters Management and Local and Regional Environment Protection Agencies of Alba, Cluj and Sibiu, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area an SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to restore/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3. 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory. [...]

Art. 6. 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species , taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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Your assertion regarding the failure to obtain an applicable urbanism certificate at the start up of the public debates and of the evaluation of the quality of the report to the environmental impact assessment, is not correct.

Thus, by the time when the public debate stage started up there was an applicable urbanism certificate and namely the urbanism certificate no. 78/26.04.2006 issued by Alba County Council. This certificate was obtained prior to the evaluation stage of the quality of the report to the environmental impact assessment which started up once the EIA was submitted to the Ministry of Environment and Water Management on the 15th May 2006.

For better understanding the applicable legal provisions and the facts developed within the mining project of Roşia Montană zone we would like to make several comments:

- The procedure for issuing the environmental permit for Roşia Montană project started up on the 14th December 2004 by submitting the technical memorandum and the urbanism certificate no.68/26.August 2004 (certificate applicable by that time). S.C. Roşia Montană Gold Corporation S.A. (RMGC) applied for and obtained a new urbanism certificate no.78/26.04.2006 issued by Alba County Council for the entire Roşia Montană Project applicable on the date of the EIA Report submission (15th May 2006) and prior to the public debate start up (June 2006);
- The Section 1 of the urbanism certificate no.78 of 26th 04.2006 entitled Work construction, position 10 – “Processing plant and associated constructions “ – including the tailing management facility which existence is compulsory for the processing plant running. The Tailing management facility is also specified on the layout plans which are integral part of the urbanism certificate and they were sealed by Alba County Council so that they cannot be modified;
- The Urbanism Certificate is an informative document and its goal is only to inform the applicant about the legal, economic and technical regime of the existing lands and buildings and to establish the urbanism requirements and the approvals necessary to obtain the construction permit (including the environmental permit) as per art.6 of Law 50/1991 referring to the completion of construction works, republished and art 27 paragraph 2 of the Norms for the application of Law 50/1991 – Official Journal 825 bis/13.09.2005).

As it is an informative document, it does not limit the number of certificates an applicant may obtain for the same land plot (art. 30 of Law no. 350/2001 regarding the territorial planning and urbanism).

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With respect to the issues indicated by you, namely the insurance of mining projects, we would like to underline the fact that the Directive no. 2004/35/CE regarding **on environmental liability with regard to the prevention and remedying of environmental damage**, which has been published in the Official Journal of the European Union no. L143/56 (“Directive no. 35/2004”) establishes the general governing framework with regard to environmental pollution.

According to the provisions stipulated by art. 1 of Directive no. 35/2004 “The purpose of this directive is to establish a framework of environmental liability based on the ‘polluter-pays’ principle, to prevent and remedy environmental damage.”

Directive no. 35/2004 states as a principle pursuant to the provisions of art. 14(1) the fact that “Member States shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under this Directive”.

Moreover, according to the provisions of art. 19(1) Directive no. 35/2004, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 30 April 2007. We would like to underline the fact that, up to now, the Directive no. 35/2004 hasn’t been transposed into our legislation. Taking into account the previously mentioned aspects, we kindly ask you to take notice of the fact that, at this moment there are no internal legal regulations to establish the

material and procedural aspects related to the establishment of such a guarantee.

However, if specific legal dispositions are going to be created with regard to the establishment of certain guarantees, RMGC is going to take all necessary measures to fulfill all mandatory legal liabilities.

Moreover, we underline the fact that RMGC has contracted one of the world's leading insurance brokers, which is well established in Romania and has a long and distinguished record of performing risk assessments on mining operations. The broker will use the most appropriate property and machinery breakdown engineers to conduct risk analysis and loss prevention audit activities, during the construction and operations activity at Roşia Montană, to minimize hazards. The broker will then determine the appropriate coverage, and work with A-rated insurance companies to put that program in place on behalf of RMGC, for all periods of the project life from construction through operations and closure.

RMGC is committed to maintaining the highest standards of occupational health and safety for its employees and service providers. Our utilization of Best Available Techniques helps us to ensure this goal is achieved. No organization gains from a loss, and to that end we will work to implement engineering solutions to risk, as they are far superior to insurance solutions to risk. Up to 75% of loss risk can be removed during the design and construction phase of a project.

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The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The possibility for a “cyanide rain” phenomenon to occur doesn't exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the

leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;

- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
- Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
- The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
- The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
- The HCN concentrations within the ambient air from the populated areas close by industrial site will be of 4 to 80 µg/m³, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection - the national legislation and European Union (EU) legislation on the Quality of Air, don't stipulate limit values for the population's health protection);
- Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). The reactions are due to HCN being weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain not effectively reducing the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
- The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effect of air-borne HCN emissions on fauna and flora.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2 (Section 4.4.3).

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model

has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU Best Available Techniques (BAT) – compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1

Item no.	3118
No. to identify the observations received from the public	No. 112998/ 25.08.2006
Proposal	<p>The questioner requests the MEWM not to issue the environment permit for Roşia Montană gold and silver mining project, formulating the following remarks, and comments:</p> <ul style="list-style-type: none"> - The EIA report does not describe and assess the project impact in a professional and objective manner - The project does not contribute to the durable development
	<p>We do not agree with the questioner's comment that the Environmental Impact Assessment study report (EIA) is not professional and objective.</p> <p>The EIA that Roşia Montană Gold Corporation (RMGC) submitted responded fully and professionally to the Terms of Reference proposed by the Ministry of the Environment and Water Management (MEWM) and complied with the relevant legal provisions and international practices. More than 100 independent consultants, (certified) experts and specialists renowned at the national, European, and even international levels, prepared the report. We are confident that the EIA provides sufficiently detailed information and reasoning for its conclusions to permit the MEWM to make its decision on the Roşia Montană Project (RMP).</p> <p>Subsequent to submission of the EIA, it has been reviewed by two different sets of experts. Technical experts, representing several international private sector banks and export credit agencies have concluded that the EIA complies with the Equator Principles designed to promote responsible lending by financial institutions to projects which raise environmental and social concerns, and an ad hoc committee of European experts (International Group of Independent Experts - IGIE) has publicly stated that the EIA was well-developed, taking into consideration their recommendations and suggestions.</p> <p>A copy of the IGIE report and RMGC's response are included as a reference document to the present annex of the EIA.</p>
Solution	<p style="text-align: center;">*</p> <p>According to the relevant legal provisions, the interested public may submit justified proposals on the environment impact assessment. Art. 44 (3) of the Order no. 860/2002 on the Environment Impact Assessment Procedure and the issuance of the environmental approval provides to this end that <i>„based on the results of the public debate, the relevant authority for the environmental protection evaluates the <u>grounded proposals/comments of the public and requests the titleholder the supplementation of the report to the environmental impact assessment study</u> with an annex containing solutions for the solving of the underlined issues”</i>.</p> <p>As the statement of the attendant to the public consultations does not contain any specific indications on the problems in regard of the project initiated by Roşia Montană Gold Corporation (RMGC), subject to the environmental impact assessment procedure, RMGC is not in position to answer and has not the capacity to make any comments to this end.</p> <p>Nonetheless, considering RMGC has expressed its full availability to discuss any issues relevant for the proposed project, please note the following:</p> <p>A starting premise to this context is that RMGC is committed to ensuring that the Roşia Montană Project (RMP) will be a catalyst for local and regional economic development. It is recognised that, as with any major industrial development, impacts will be positive and negative. RMGC commits to work alone and in partnership to ensure that beneficial impacts will be maximised. RMGC will priorities a participatory approach wherever possible and will seek guidance from local and regional authorities and from the community when deciding on issues that may impact the area's development. Negative impacts will be</p>

mitigated through measures as described in the EIA report.

RMGC recognizes that in order to ensure it meets its sustainable development commitments it must support, as a minimum, five key interrelated areas that make up the three traditional pillars of sustainable development - social, environmental and economic. These areas are presented below as five capitals of sustainable development.

RMGC has developed its Sustainable Development Policy [1] in support of this and this is presented further on in this annex. Supporting elements are also presented, as are a set of Authority, Community, and Company initiatives within the Roşia Montană Sustainable Development Partnerships and Programs.

1. Five Capitals of Sustainable Development

Financial Capital

Economic Development Impact, fiscal management, taxes

- Average of 1200 jobs during construction over 2 years, the majority of which sourced locally
- 634 jobs during operations (direct employment including contracted employment for cleaning, security, transportation, and other), for 16 years, most of which sourced locally
- Some 6000 indirect jobs for 20 years, locally & regionally [2]
- US\$ 1 billion in profit share, profit tax, royalties and other taxes and fees to Romanian local, regional & national government
- US\$ 1.5 billion procuring goods & services. US\$ 400 million during construction (2 years) and US\$ 1.1 billion during production, from Romania (16 years)

To further promote and develop the economic opportunities presented by the RMP, RMGC is also cooperating with local stakeholders regarding setting up their own businesses:

- The set up of a micro-credit finance facility in the area to allow access to affordable financing
- The set up of a business centre and incubator units, offering mentoring, training (entrepreneurial, business plans, fiscal & administrative management, etc), legal, financial & administrative advice to promote local & regional business development both to service the RMP but also to encourage entrepreneurship in preparation of the post-mining sustainable development needs,

Physical Capital

Infrastructure – including buildings, energy, transport, water and waste management facilities

- Increases in revenue to government agencies, of the order of US\$ 1 billion over 20 years (construction + production + closure) will result in additional money the government may allocate to improving community infrastructure
- RMGC will also develop the resettlement sites of Piatra Albă and Dealul Furcilor in Alba Iulia. Piatra Albă will contain a new civic centre, commercial and residential areas. These will be transferred to the local authorities once complete. The RRAP contains full details of these initiatives

Human Capital

Health and education

- A private dispensary & health clinic in Piatra Albă (see RRAP), accessible to wider community through health insurance
- Upgrading of a wing of Abrud hospital, accessible to the wider community through the national Romanian health system
- Improvement of mobile emergency medical system in the area
- The building of a new school, residential & civic centre in Piatra Albă. This is fully described in the RRAP
- Health awareness campaigns (in partnership with local authorities & NGOs) covering: reproductive health, diet, and lifestyle amongst others
- Partnerships with education providers & NGOs concerning access to & improvement of education facilities in the area, e.g.: the NGO and local authorities lead CERT Educational Partnership (www.certapuseri.ro).

Social Capital

Skills training, community relationships and social networks and the institutional capacity to support

them, preservation of cultural patrimony

- Efforts to develop and promote Roşia Montană's cultural heritage for both locals and tourism – RMGC is a partner in the Roşia Montană Cultural Heritage Partnership (info@rmchp.ro)
- Providing adult education opportunities and skills enhancement including training programs, funds and scholarships, to increase employment chances both direct with RMGC and indirect – RMGC is a partner in the Roşia Montană Professional and Vocational Program (info@rmpvtp.ro)
- Programs assisting vulnerable people & groups, and to consolidate social networks particularly in Roşia Montană – RMGC is a partner in the Roşia Montană Good Neighbour Program lead by local NGO ProRoşia (info@rmgnp.ro)
- RMGC supports a NGO-lead partnership working with the youth in the area to improve and increase the capacity of the community (www.certapuseni.ro).

Natural Capital

Landscape, biodiversity, water quality, ecosystems

- Measures contained in the RMP management plans and SOPs will result in mitigation of environmental impacts and conditions as identified in the EIA.
- The improved environmental condition will enhance the quality of life in Roşia Montană.
- Training & assistance in integrating environmental considerations into business plans.
- Awareness-building regarding positive environmental performance of business activities.
- Environmental standards associated with loans through the micro-credit finance facility including monitoring of environmental performance.
- Business Code of Conduct requiring suppliers to RMP to comply with RMGC's environmental performance standards.

RMGC's view of the social and economic benefits of the RMP is described in the Community Sustainable Development Plan and EIA Chapter 4.8 – the Social and Economic Environment.

In order to achieve its commitments, RMGC acknowledges that it needs to collaborate with the Community, Authorities and civil society on issues that impact the area's development. This approach allows the Community to own, direct and control all relevant development issues in a multi-stakeholder and integrated manner.

In the spirit of that commitment, to date, RMGC has conducted extensive consultations, including 1262 individual meetings and interviews, and the distribution of questionnaires for which over 500 responses have been received, 18 focal group meetings, and 65 public debates, in addition to holding discussions with government authorities, non-governmental organisations and potentially affected stakeholders. Feedback has been used in the preparation of the Management Plans of the RMP's Environmental Impact Assessment (EIA) as well as the drafting of the Annex to the EIA.

Support of the area's sustainable development will be conducted within the framework of Partnership as promoted by organisations such as the United Nations Development Program (UNDP). For example, future socio-economic impacts mitigation and enhancement measures will be conducted under the guidance of the Roşia Montană Socio-Economic Research Centre (info@rmserc.ro), which in turn is partnered with the local authorities. This will allow a transparent evaluation of the effectiveness of sustainable development support and will provide a forum to implement necessary improvements.

Other sustainable development support partnerships are presented under the section entitled Roşia Montană Sustainable Development Programs and Partnerships further in this annex (www.rmsdpps.ro).

Beyond immediate direct and indirect benefits, the presence of the RMP as a major investment improves the area's economic climate, that will in turn encourage the development of non-mining activities. It is expected that the improved investment and economic climate will lead to business opportunities that can develop concurrent with the RMP, even as they extend well beyond economic activities related directly to mining operations. This diversification of economic development is a critical benefit of the investments generated to realise the RMP.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

References:

[1] This is an updated version of the policy already presented in the EIA management plans – it has been improved following feedback during public consultation.

[2] Economists have argued that the multiplier effect for the RMP is in the order of 1 Direct job to 30 Indirect Full Time Job Equivalents over twenty years – the methodology used may be available via a direct request to RMGC. However, the more conservative 1 : 10 Direct : Indirect figure is used here to maintain consistency with internationally accepted multiplier effects for large mining projects in impoverished regions, such as mentioned in UNCTAD (2006) Commodity policies for development: a new framework for the fight against poverty. TD/B/COM.1/75, Geneva, Switzerland. From experience, this is also the number most often quoted in Canada.

Item no. 3119 Same as: 3120, 3121

No. to identify the observations received from the public No. 112995/25.08.2006 Same as: No. 112994/25.08.2006, No. 112993/25.08.2006

Proposal

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project, formulating the following remarks, questions and comments:

- The tailings management facility is not lined and constitutes a danger for the Abrud town in case of failure;
- The total costs for the mine closure are unrealistic;
- The project represents a threatening to the protected flora and fauna infringing the EU Directive regarding habitats;
- The phase of public consultation and quality evaluation of the impact assessment study report begun without a valid urbanism certificate;
- The company could not find an insurer for the mining project.
- The EIA report does not assess the "zero alternative";
- The EIA report does not contain an evaluation of the phenomenon so-called "cyanide rain" nor a description of the trans-frontier impact on some natural important areas in case of accident

Tailings Management Facility

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or "the facility") has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

Solution

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, "The Tailings Facility Management Plan" for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any

seepage that does extend beyond the dam centerline;

- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

Proximity to Abrud

The TMF is located approximately 2 km above the town of Abrud and therefore the design criteria for the dam have been established to address consequence of a dam failure. The proposed dam at the Tailings Management Facility (TMF) and the secondary dam at the catchment basin are rigorously designed to exceed Romanian and international guidelines, to allow for significant rainfall events and prevent dam failure due to overtopping and any associated cyanide discharge, surface or groundwater pollution.

Specifically, the facility has been designed for two Probable Maximum Precipitation (PMP) events and the associated Probable Maximum Flood (PMF). The design criterion for TMF includes storage for two PMF flood events, more rain than has ever been recorded in this area. The construction schedule for embankment and basin staging will be completed to ensure that PMP storage requirements are available throughout the project life. The Roşia Montană TMF is therefore designed to hold a total flood volume over four times greater than the Romanian government guidelines. In addition, an emergency spillway for the dam will be constructed in the unlikely event that another event occurs after the second PMP event. A spillway is only built for safety reasons to ensure proper water discharge in an unlikely event and, thus, avoid overtopping which could cause a dam breach. The TMF design therefore very significantly exceeds required standards for safety. This has been done to ensure that the risks involved in using Corna valley for tailings storage are well below what is considered safe in every day life.

Additional study was done regarding earthquakes, and, as indicated in the EIA the TMF is engineered to withstand the Maximum Credible Earthquake(MCE). The MCE is the largest earthquake that could be considered to occur at the site based on the historical record.

In addition, Section 7 of the EIA report includes an assessment of the risks cases that have been analyzed and include various dam break scenarios. Specifically, the dam break scenarios were analyzed for a failure of the starter dam and for the final dam configuration. The dam break modelling results indicate the extent of tailings run out. Based on the two cases analyzed, the tailings will not extend beyond the confluence of the Corna valley stream and the Abrud River.

However, the project recognizes that in the highly unlikely case of a dam failure that a Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.

For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, “TMF Potential Failure Scenarios” of the EIA.

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The mine closure costs are not unrealistic. RMGC’s closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA’s Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best practice, best available technology (BAT) and compliance with

all Romanian and European Union laws and regulations.

Closure and rehabilitation at Roşia Montană involves the following measures:

- Covering and vegetating the waste dumps as far as they are not backfilled into the open pits;
- Backfilling the open pits, except Cetate pit, which will be flooded to form a lake;
- Covering and vegetating the tailings pond and its dam areas;
- Dismantling of disused production facilities and revegetation of the cleaned-up areas;
- Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment;
- Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached.

While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense – that incurred by the earthmoving operation required to reshape the landscape – can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful revegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.

Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production

We believe that – far from being unrealistic – our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world's largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

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The impacts on protected flora and fauna will occur only locally, but these impacts will not lead to the disappearance of any species. The mining project was designed even from the beginning to meet all Romanian and European environmental legal requirements.

The company believes that the project's impact on the environment remains significant, especially because the project will cover previous environmental impact. But, the investments required to restore/rehabilitate Roşia Montană area in order to resolve current complex environmental issues, are possible only after the implementation of economic projects capable of generating and warranting responsible and direct courses of action as a base component of sustainable development concepts. Clean economic processes and technologies may develop only in the presence of a solid economic system, in a total respect towards environment that will resolve even previous impacts caused by all anthropic activities.

Project's base documents are an unbiased reasoning of its implementation, taking into account the complex environmental commitments assumed for Roşia Montană area.

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Due to the large amount of information, these tables are available in the electronic format of EIA. 6,000 electronic copies of EIA Report presented on DVD/CDs have been disclosed to the public both in English and Romanian. Moreover, the EIA is also available on RMGC's website and on the websites of Ministry of

Environment and Waters Management and Local and Regional Environment Protection Agencies of Alba, Cluj and Sibiu, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area an SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to restore/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3. 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory. [...]

Art. 6. 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species , taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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Your assertion regarding the failure to obtain an applicable urbanism certificate at the start up of the public debates and of the evaluation of the quality of the report to the environmental impact assessment, is not correct.

Thus, by the time when the public debate stage started up there was an applicable urbanism certificate and namely the urbanism certificate no. 78/26.04.2006 issued by Alba County Council. This certificate was obtained prior to the evaluation stage of the quality of the report to the environmental impact assessment which started up once the EIA was submitted to the Ministry of Environment and Water Management on the 15th May 2006.

For better understanding the applicable legal provisions and the facts developed within the mining project of Roşia Montană zone we would like to make several comments:

- The procedure for issuing the environmental permit for Roşia Montană project started up on the 14th December 2004 by submitting the technical memorandum and the urbanism certificate no.68/26.August 2004 (certificate applicable by that time). S.C. Roşia Montană Gold Corporation S.A. (RMGC) applied for and obtained a new urbanism certificate no.78/26.04.2006 issued by Alba County Council for the entire Roşia Montană Project applicable on the date of the EIA Report submission (15th May 2006) and prior to the public debate start up (June 2006);
- The Section 1 of the urbanism certificate no.78 of 26th 04.2006 entitled Work construction, position 10 – “Processing plant and associated constructions “ – including the tailing management facility which existence is compulsory for the processing plant running. The Tailing management facility is also specified on the layout plans which are integral part of the urbanism certificate and they were sealed by Alba County Council so that they cannot be modified;
- The Urbanism Certificate is an informative document and its goal is only to inform the applicant about the legal, economic and technical regime of the existing lands and buildings and to establish the urbanism requirements and the approvals necessary to obtain the construction permit (including the environmental permit) as per art.6 of Law 50/1991 referring to the completion of construction works, republished and art 27 paragraph 2 of the Norms for the application of Law 50/1991 – Official Journal 825 bis/13.09.2005).

As it is an informative document, it does not limit the number of certificates an applicant may obtain for the same land plot (art. 30 of Law no. 350/2001 regarding the territorial planning and urbanism).

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With respect to the issues indicated by you, namely the insurance of mining projects, we would like to underline the fact that the Directive no. 2004/35/CE regarding **on environmental liability with regard to the prevention and remedying of environmental damage**, which has been published in the Official Journal of the European Union no. L143/56 (“Directive no. 35/2004”) establishes the general governing framework with regard to environmental pollution.

According to the provisions stipulated by art. 1 of Directive no. 35/2004 “The purpose of this directive is to establish a framework of environmental liability based on the ‘polluter-pays’ principle, to prevent and remedy environmental damage.”

Directive no. 35/2004 states as a principle pursuant to the provisions of art. 14(1) the fact that “Member States shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under this Directive”.

Moreover, according to the provisions of art. 19(1) Directive no. 35/2004, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 30 April 2007. We would like to underline the fact that, up to now, the Directive no. 35/2004 hasn’t been transposed into our legislation. Taking into account the previously mentioned aspects, we kindly ask you to take notice of the fact that, at this moment there are no internal legal regulations to establish the

material and procedural aspects related to the establishment of such a guarantee.

However, if specific legal dispositions are going to be created with regard to the establishment of certain guarantees, RMGC is going to take all necessary measures to fulfill all mandatory legal liabilities.

Moreover, we underline the fact that RMGC has contracted one of the world's leading insurance brokers, which is well established in Romania and has a long and distinguished record of performing risk assessments on mining operations. The broker will use the most appropriate property and machinery breakdown engineers to conduct risk analysis and loss prevention audit activities, during the construction and operations activity at Roşia Montană, to minimize hazards. The broker will then determine the appropriate coverage, and work with A-rated insurance companies to put that program in place on behalf of RMGC, for all periods of the project life from construction through operations and closure.

RMGC is committed to maintaining the highest standards of occupational health and safety for its employees and service providers. Our utilization of Best Available Techniques helps us to ensure this goal is achieved. No organization gains from a loss, and to that end we will work to implement engineering solutions to risk, as they are far superior to insurance solutions to risk. Up to 75% of loss risk can be removed during the design and construction phase of a project.

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The Report on the Environmental impact assessment study (EIA) considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue (Chapter 5 – *Assessment of Alternatives*).

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project (RMP).

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The possibility for a “cyanide rain” phenomenon to occur doesn't exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management

- facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
 - Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
 - The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
 - The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
 - The HCN concentrations within the ambient air from the populated areas close by industrial site will be of 4 to 80 µg/m³, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection - the national legislation and European Union (EU) legislation on the Quality of Air, don't stipulate limit values for the population's health protection);
 - Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). The reactions are due to HCN being weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain not effectively reducing the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
 - The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effect of air-borne HCN emissions on fauna and flora.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2 (Section 4.4.3).

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abruđ-Arieş-Mureş

river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU Best Available Techniques (BAT) – compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1

Item no. 3122

No. to identify the observations received from the public
No.
112979/
25.08.2006

Proposal

The questioner requests the MEWM not to issue the environment permit for Roşia Montană mining project, formulating the following remarks and comments:

- The tailings management facility is not lined, thus violating the Directive regarding the underground water protection.
- From biodiversity point of view, Roşia Montană contains important habitats and fauna and flora species which are protected in accordance with the Romanian laws and Directive 92/43/EEC regarding habitats
- There are no solutions to diminish the impact on the aquatic and terrestrial ecosystems during the construction and post-closure periods
- There is no an evaluation of the health risks generated by the losses of forest land and destruction of the vegetal belts(barrier against the polluted air)
- In the case of an ecological accident, there is no a description of the trans-boundary impact on some natural protected areas as Koros-Maros national Park from Hungary

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

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- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

Solution

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline;
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

With respect to your comments made as regards a presumptive infringement of the provisions of Government Decision No.351/2005 (“GD 351/2005”), there are several aspects to be taken into consideration. Thus:

1. Firstly, please note that, according to the provisions of art. 6 of GD 351/2005, any activity that might determine the discharge of dangerous substances into the environment is subject to the prior approval of the water management authorities and shall comply with the provisions of the water permit issued in accordance with the relevant legislation.

The GD 351/2005 provides that the water permit shall be issued only after all technical-construction measures are implemented as prevent the indirect discharge of dangerous substances into the underground waters. The maximum discharge limits are expressly provided under GD 351/2005 and compliance with such is a condition for granting and maintaining the water permit.

In accordance with the provisions of GD 351/2005, the actual discharge limits should be authorized by the relevant authority, such process being understood by the lawmaker in consideration of the complexity and variety of industrial activities, as well as the latest technological achievements.

Therefore, please note that the EIA stage is not intended to be finalized into an overall comprehensive permit, but it represents only a part of a more complex permitting process. Please note that, according with art. 3 of GD 918/2002, the data`s level of detail provided in the EIA is the one available in the feasibility stage of the project, obviously making impossible for both the titleholder and authority to exhaust all required technical data and permits granted.

The adequate protection of the ground water shall be ensured by the terms and conditions of the water permit. The issuance of the water permit shall be performed following an individual assessment of the project, considering its particular aspects and the relevant legal requirements applicable for mining activities. Until the water permit is obtained, any allegation regarding the infringement of GD 351/2005 is obviously premature mainly because the water permit shall regulate, in accordance with the relevant legal provisions, the conditions to be observed by the developer as regards the protection of the ground water;

2. Secondly, kindly note that the complexity and specificity of mining projects generated the need of a particular legal framework. Therefore, for such projects, the reading of the legal provisions of a certain enactment should be corroborated with the relevant provisions of the other regulations applicable.

In this respect, please not that the understanding of GD 351/2005 must be corroborated with the provisions of the entire relevant legislation enforceable as regards Roşia Montană Project, with a particular accent to Directive 2006/21/EC on the management of waste from the extractive industries (“Directive 21”).

The very scope of Directive 21 is to provide a specific legal framework for the extractive wastes and waste facilities related to mining projects, considering the complexity of such projects and the particular aspects of mining activities that can not always be subject to the common regulations on waste management and landfill.

From this perspective, Directive 21 provides that, an operator of a waste facility, as such is defined thereunder (please note that the TMF proposed by RMGC is considered a “waste facility” under Directive 21), must inter alia, ensure that:

- a) *“the waste facility is [...]designed so as to meet the necessary conditions for, in the short and long-term perspectives, preventing pollution of the soil, air, groundwater or surface water, taking into account especially Directives 76/464/EEC (1), 80/68/EEC (2) and 2000/60/EC, and ensuring efficient*

collection of contaminated water and leachate as and when required under the permit, and reducing erosion caused by water or wind as far as it is technically possible and economically viable;"

- b) *"the waste facility is suitably constructed, managed and maintained to ensure its physical stability and to prevent pollution or contamination of soil, air, surface water or groundwater in the short and long-term perspectives as well as to minimize as far as possible damage to landscape."*

In addition, it should be mentioned that RMGC was required by MWEM under the Terms of Reference, to perform the EIA considering the provisions of Directive 21 and the BAT Management of Mining Waste. The Directive 21 was intended by the EU DG of Environment to be the legislative regime applicable to sound management of mining waste throughout Europe and therefore compliance with its provisions is mandatory.

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The impact on the protected flora and fauna will be obvious only at local level, and it will not lead to the disappearance of any species. The mining project was conceived from the onset so as to comply with the conditions and standards stipulated by the Romanian and European legislation in the field of environmental protection.

The company believes that the environmental impact generated by proposed project remains significant the more so as it will add to the pre-existing ones. But the required investments for the ecological restoration/rehabilitation of the Roşia Montană area meant to solve complex environmental issues existing at present can be developed only after the implementation of economic projects able to generate and ensure that direct and responsible measures are taken, as part of the principles that represent the basis for the sustainable development concepts. The presence of a strong economic system is the key for the implementation of clean economic processes and technologies, in full respect of the environment, which are able to remove the previous effects generated by human activities.

The documentation drafted to support this mining project represents an objective justification for its implementation given that the company has assumed the environmental responsibility, which is extremely complex in the Roşia Montană area.

Some of species existing at Roşia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Given the large amount of information contained, these tables are available in the electronic format of the EIA. 6,000 DVD/CDs comprising the EIA Report have been made available to the public both in English and in Romanian. Moreover, the EIA is also available on RMGC's website as well as on the websites of the Ministry of Environment and Waters Management and of the Local and Regional Environment Protection Agencies of Alba County, Cluj County and Sibiu County, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to reconstruct/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate, Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11.[...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory.[...]

Art. 6, 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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The solutions that will be taken to mitigate the adverse impact on aquatic and terrestrial ecosystems will consist of the following: full collection of ARD (caused by historic pollution), treatment of waters that will subsequently be discharged, and increase of forested areas within the area.

The mitigation solutions of impacts that are proposed in the Environmental Impact Assessment (EIA) and in the Biodiversity Management Plan, Plan H, are meant for project's development stages and are also considering the impacts resulted from previous activities.

The proposed Compensatory Functional Ecologic Network represents one of the direct measures proposed to mitigate impacts on aquatic and terrestrial ecosystems, and includes a structural and functional detailing (Plan H p. 20-22), as well as a scheduling of measures (Plan H p. 22-28) for the main stages of the Project (years: "0", "7", "10", "14" "16", and "19" respectively), construction, operations and a first phase of post-closure stage.

For further details please refer to Annex 2 that includes the map of habitats and the description of Compensatory Functional Ecologic Network.

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The health risk assessment is based on specific data only, and not on subjective aspects such as "the destruction of the green belts".

The health risk assessment has been carried out taking into account three categories of information, namely:

- the health baseline conditions, resulting from the assessment of all medical records available from all general practitioners and from the two hospitals in the area, referring to the entire population from more than 40 localities;
- the quality of the environmental media with regard to the distribution of the hazardous substances under investigation, before the development of mining operations;
- predictions on the distribution of the contaminants' concentrations in the environmental media, for different time periods during the life time of the project [1].

The health risk assessment has taken into account predictions on the distribution of hazardous substances concentration in the environmental media, as they have been presented in the EIA, and not the causes and/or factors that have contributed to those concentrations.

Reference:

[1] Chapter 6, *Risk Assessment*, pages 60-129, vol. 5, *Health Baseline Report*.

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We appreciate that there is concern about transboundary impacts and have worked extensively with independent experts and scientists to fully assess all possibilities. These assessments, including a just-completed study of catastrophic failure scenarios by The University of Reading, have concluded that the Roşia Montană Project has no transboundary impact. A full copy of the University of Reading study can be found in the reference documents included as an annex to this report.

The Environmental Impact Assessment Report (EIA) (Chapter 10 *Transboundary Impacts*) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mureş and Tisa river basins in Hungary. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken by RMGC to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as cyanide, nitrate, ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial European Union Best Available Techniques (EU BAT) - compliant technology adopted for the project (for example, the use of a cyanide

destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the Tailings Management Facility -TMF- to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the *Mureş River Modelling Program* and the full modelling report is presented as Annex 5.1.*

Item no.	3123	Same as: 3124, 3125, 3126, 3127
No. to identify the observations received from the public	No. 112880/ 25.08.2006	Same as: No. 112875/25.08.2006, No. 112868/25.08.2006, No. 112873/25.08.2006, No. 112874/25.08.2006
Proposal	<p>The questioner requests the MEWM not to issue the environment permit for the Roşia Montană mining project arguing as follows:</p> <ul style="list-style-type: none"> - The processing with cyanides would compromise the tourist potential from area; - 80 % of the precious metals extracted will go to RMGC; - The massive resettlement of the population, churches and cemeteries is intolerable; - The lack of information and transparency on the part of the Ministry for Environment and Waters Management is intolerable; - The simplistic argument that the Project will generate new jobs. <p>SEE CONTESTATION TYPE 4</p>	
Solution	<p>The development of Roşia Montană's tourism potential can be done in parallel with active mining operations. Chapter 5 of the Environmental Impact Assessment Study Report (EIA) identifies and assesses project alternatives, including tourism. Importantly, the EIA concludes that the project does not preclude the development of other industries such as tourism. On the contrary, the mining project would remove some of the existing significant impediments to establishment of other industries, such as pollution, poor access and other problems that have arisen through lack of inward investment. As described in Volume 14, 4.8 Social and Economical Environment, and in Volume 31, Community Sustainable Development Management Plans, there are currently some tourism activities in Roşia Montană. However the tourism industry is not at present a significant economic driver.</p> <p>As the Roşia Montană Project (RMP) project affects only 4 of Roşia Montană's 16 sub-comuna, Roşia Montană could continue to develop its tourism potential. There are initiatives to do so, such as "Tourism development model and its contribution to sustainable development in Zlatna, Bucium, Roşia Montană and Baia de Arieş as alternative to mono-industrial mining activities" prepared by the National Institute for Research and Development in Tourism (INCDT) published in April 2006, just as the EIA report was being submitted to the Ministry of Environment and Water Management.</p> <p>Roşia Montană Gold Corporation (RMGC) has also commissioned a study which sets out how the potential tourism markets and how these might best be approached in an integrated project:</p> <p>"From experience, tourism will be possible and profitable only when there is something to offer to tourists in terms of clean environment, proper infrastructure (good roads, accommodation, restaurants, running water, proper sewage system, waste disposal facilities, etc.), attractions (museums, other things to see such as historical monuments, etc). A mining project such as the one proposed by RMGC will provide, through taxes, and the development of service industries, the necessary funds to improve the infrastructure. Through the RMP and its heritage management plans, US\$25 million will be invested by the company in the protection of cultural heritage in such a way to support tourism. A training program will provide the necessary skills to develop tourist activities and the Roşia Montană Micro Credit will support people in starting pensions, restaurants, etc., all needed for attracting tourists. At the end of the project, there will be a new village, plus the restored old centre of Roşia Montană with a museum, hotels, restaurants and modernized infrastructure, plus restored mining galleries (e.g. Cătălina Monuleşti) and preserved monuments such as the one from Tău Găuri - all of which would serve as tourist attractions. Further to this, it is understood that the government will be acting locally to encourage economic growth. (see Roşia Montană Initial Tourism Proposals Gifford Report 13658.R01).</p> <p>There are good examples where tourism and mining has been carried on side by side. The examples of the Martha Gold Mine, Waihi in New Zealand and the Rio Narcea Gold Mine in Spain have been cited, and the latter is documented in the EU "Best Reference" document for management of mining wastes. This is because these mines are operated efficiently, safely and with care of the environment. Because these mines are located in districts with a long history of mining, visitors can be shown mining technology old</p>	

and new. Roşia Montană is in a good position to take similar advantage of its mining history and RMGC proposes to manage its operations in line with this best practice. Other related examples have been discussed in Roşia Montană Initial Tourism Proposals.

While cyanide is a highly toxic substance and its manufacture, supply, use and disposal must be carefully managed, RMGC is a signatory to the International Cyanide Management Code that requires the adoption of best practice for cyanide management. RMGC will obtain cyanide from a manufacturer who will also be a signatory to the Code.

As cyanide is quite commonly used in gold extraction, the European Union recently issued a Directive on the management of wastes from the extractive industry [1]. This Directive has been used as a point of reference in designing the RMP and, in particular, the management of cyanide. In line with the requirements of the Directive, cyanide will *not* be discharged in waste products (process “tailings”) to the tailings pond at levels that are toxic for humans, mammals and birds, i.e. above 10 parts per million (ppm). In order to achieve this, most of the cyanide will be recovered from the process circuits for re-use and residual cyanide levels will be reduced to below 10 ppm using a patented chemical process (cyanide destruction circuit).

A simplified description of the ore processing system and the use and management of cyanide is provided in the Non-Technical Summary. Cyanide solution is used to dissolve the microscopic particles of gold and silver from the ore after it has been crushed and ground to a fine powder (ore leaching). Carbon is used to remove the metals from the cyanide solution (adsorption) and the gold and silver is then separated from the carbon using an electric current (electrowinning). The cyanide solution and carbon are then re-used to minimize waste discharges.

References:

[1] Directive 2006/21/EC of the European Parliament and of the Council on the management of waste from the extractive industries

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According to art. 38 letter c) of the Mining Law no. 85/2003, “*the titleholder of the license/permit has the following rights: to dispose of the quantities of mining products achieved*”. Therefore, this is a legal right of all mining licenses titleholders, irrespective of the mineral resources/reserves for which mining activities are granted into concession.

Mining activities are developed by titleholders on their own risk and using their own financial resources for scoping of resources/reserves and for projects permitting and operation. Apart from the exploration/exploitation tax, which is a fix amount to be paid for each perimeter irrespective of the activities developed, the titleholders are bound to pay to the state the mining royalty. The mining royalty is set up by art. 45 of the Mining Law no. 85/2003 as a quota from the value of the mining production achieved.

The Romanian State has the legal right to purchase precious metals through the National Bank of Romania (NBR). The NBR purchases precious metals when it deems necessary and as per the legal provisions in force, being also the only one able to decide the volume of the gold reserves of the Romanian state. In this respect, art. 30 and 31 let. a) of the Law no. 312/2004 for the NBR Statute approval provide: “*The NBR, observing the general rules regarding liquidity and external assets specific risk, establishes and maintains international reserves, so as to be able to determine at any moment their size. Such reserve is cumulatively or selectively composed of: gold within state thesaurus or deposited abroad; [...]. The National Bank of Romania monitors the maintaining of the gold reserve at a level it deems as being appropriate for the external transactions of the state*” respectively “*the NBR is authorized, under the conditions it establishes and modifies from time to time, to perform the following operations: to sell, buy and perform any other transactions with gold ingots and coins and other precious metals*”.

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The company has considered social impact mitigation as the central element of the resettlement and relocation strategy. For the actual impact of the RMP in this respect, please refer also to the EIA Report,

At the individual level, the resettlement and relocation were turned into individual development opportunities through:

- small business compensation and financial support;
- professional training and career development;
- properties replacement values compensation, including land restoring cost and eventual crop lost;
- scholarship;
- relocation / resettlement assistance for properties search, registration formalities, health care support, jobs search and training, small savings and investment assistance.

At the community level, resettlement sites in both rural area (Piatra Albă – Roșia Montană) and an urban one (Furcilor Hill- Alba Iulia) offering higher living standards.

The idea animating this project may not be deemed as antichristian, as long as its main principle is that of responsible mining. We believe that resources development is not an act against God, if it is performed in a responsible manner. This project provides to future generations not only jobs, but also a cleaner environment, personal development opportunities, small enterprise support, and support provided for the development of one of the most underdeveloped areas of Romania.

All reburials will be done at the request of the families, and the expense of RMGC. The process will follow to the letter Romanian law on reburials [1], with the company's commitment to act with respect and reverence. Abandoned graves will be relocated, also with full respect and reverence, to Piatra Albă's new cemetery.

Currently, the most powerful driver of negative social effects is Roșia Montană's 70% unemployment and the region's declining economic conditions. Without the RMGC mining project, unemployment in Roșia Montană would exceed 90%. These economic circumstances make the long term survival of the village—in the absence of the RMGC mining project—doubtful.

Two churches and two prayer houses out of a total of 10 places of worship located within the project's footprint must be relocated or restored under the mine plan. Those churches will be moved in accordance with the wishes of the congregation, at the expense of RMGC. Churches construction is a central element in the new community of Piatra Albă being built by the company.

References:

[1] the relocation of graves and cemeteries is governed by the following regulatory acts:

- (i) Law no. 489/2006 on the freedom of religion and the general regime of religious affairs, published in the Romanian Official Gazette, Section I, no. 11/08.01.2007;
- (ii) Law no. 98/1994 establishing and sanctioning breaches of the hygiene and public health rules, published in the Romanian Official Gazette, Section I, no. 317/16.11.1994, as subsequently amended and supplemented ("Law no. 98/1994");
- (iii) The hygiene norms and recommendations concerning the population's life environment, published in the Romanian Official Gazette, Section I, no. 140/03.07.1997, as subsequently amended and supplemented ("Order 536/1997");
- (iv) GD no. 955/2004 on the approval of the framework Rules for the organization and operation of the public services for the administration of the public and private domain of local interest, published in the Romanian Official Gazette, Section I, no. 660/22.07.2004;
- (v) Order no. 261/1982 on the approval of the standard Rules for the administration of graveyards and the crematories of the localities, published in the Official Gazette no. 67/11.03.1983;
- (vi) Rules for the organization and operation of the parish and monastery graveyards within the eparchies of the Romanian Orthodox Church, approved by Decision of the Religious Affairs Department no. 16.285/31.12.1981.

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Public consultation and information during the environmental impact assessment procedure, including the publication of the Environmental Impact Assessment (EIA) Report documentation for consultation

purposes, have been made in compliance with the provisions of (i) Articles 11 (2), 12 and 15 of Government Decision no. 918/2002 regarding the Environmental Impact Assessment Framework Procedure and the Approval of the List of Public or Private Projects Forming the Object of This Procedure ("Government Decision no. 918/2002")[1], (ii) Chapter 3 regarding the public information and participation in the environmental impact assessment procedure of Order no. 860/2002 of the Minister of Waters and Environmental Protection Regarding the Environmental Impact Assessment and Environmental Permitting Procedure ("Order no. 860/2002"), and of the principles established by the Aarhus Convention on access to information, public participation in decision-making and access to justice in environmental matters[2], and also of the provisions of Directive 85/337/EEC on Environmental Impact Assessment of the Effects of Certain Public and Private Projects on the Environment.

The hardcopy of the EIA Report was available at 48 locations – town halls, environmental protection agencies, libraries, ministries, information centers of the Roşia Montană Project: Zlatna Town Hall, Deva Environmental Protection Agency, Arad Environmental Protection Agency, Arad Town Hall, Petroşani University Library, Turda Town Hall, Abrud Town Hall, Abrud Information Center, Câmpeni Town Hall, Lupşa Town Hall, Roşia Montană Information Center, Bucium Information Center, Bucium Town Hall, Deva Town Hall, Deva County Library, Brad Town Hall, Roşia Montană Town Hall, Bistra Town Hall, Baia de Arieş Town Hall, Alba Iulia Town Hall, Alba Iulia Environmental Protection Agency, Alba County Prefecture, Alba County Council, Alba Iulia '1 Decembrie 1918' University Library, Baia Mare North University Library, Romanian Academy Library, Baia Mare 'Petre Dulfu' County Library, Sibiu 'Lucian Blaga' University Library, Alba Iulia Information Center, Cluj Environmental Protection Local Agency, Cluj Environmental Protection Regional Agency, Cluj Town Hall, Cluj Technical University Library, Arad County Library, Cluj County Prefecture, Cluj 'Babes Bolyai' University Library, Bucharest Information Center, Bucharest Economic Studies Academy Library, Bucharest Central University Library, Bucharest National Library, Timișoara County Library, Bucharest Town Hall, Timișoara Western University Library, Petroşani University Library, Bucharest Ministry of Environment and Water Management, Arad 'Vasile Goldiș' University, Arad 'Aurel Vlaicu' University, Bucharest Environmental Protection National Agency, Sibiu Environmental Protection Agency, Roşia Montană Environmental Information Center. According to the law, public institutions had the obligation to allow public access to this documentation during the working hours.

Also, the electronic copy of this study was made available on several web pages, such as: the web page of the Ministry of Environment and Water Management - www.mmediu.ro; Sibiu Regional Environmental Protection Agency - www.ipmsb.ro; Alba Environmental Protection Agency - www.apm-alba.ro; the web pages of Roşia Montană Gold Corporation S.A (RMGC). and Gabriel Resources - www.gabrielresources.com; www.povesteadevarata.ro and the Environmental Partnership for Mining - www.epmining.org.

Also, we have distributed more than 6,000 CDs and DVDs with the English and Romanian versions of the EIA Report.

References:

[1] Please note that Government Decision no. 918/2002 was abrogated by Government Decision no. 1213/2006 Regarding the Environmental Impact Assessment Framework Procedure for Certain Public and Private Projects, published in the *Official Gazette*, Part 1, no. 802 of 25/09/2006 ("Government Decision no. 1213/2006").

However, considering the provisions of Article 29 of Government Decision no. 1213/2006, stipulating that "The projects transmitted to a competent environmental protection authority for the issuance of the environmental permit and forming the object of the environmental impact assessment, prior to the coming into force hereof, shall be subject to the environmental impact assessment procedure in force at the time of application", please note that the provisions of Government Decision no. 918/2002 are still applicable to RMGC's project.

[2] The Aarhus Convention was ratified in Romania by Law no. 86/2000 for the Ratification of the Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters, signed at Aarhus on June 25, 1998.

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It is true that Roşia Montană Project (RMP) will create an average of 1,200 jobs during the 2 year

construction period. It is expected that the majority of these positions will be sourced locally, from the project impacted area.

During the 16 years of operations the RMP will require 634 jobs (direct employment including contracted employment for cleaning, security, transportation, and other). It is expected that most of these jobs will be sourced locally, from the project impacted area [1] But this is not the only benefit of the project.

With the mining project as the economic catalyst, Roşia Montană Gold Corporation (RMGC) is committed to working proactively to create an enabling business environment promoting local sustainable development with all manner of non-mining enterprises. This will be developed during the life of the project and designed to operate independently following mine closure.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

References:

[1] Roşia Montană Project, Environmental Impact Assessment Study Report (EIA), Non Technical Summary, vol.19, pp.7. With inclusion of additional hiring for contracted employment for cleaning, security, transportation, and other, direct employment is 634.

Item no. 3128

No. to identify the observations received from the public No. 112162/25.08.2006

Proposal

The questioner opposes the proposed gold and silver mining project at Roşia Montană and makes the following observations and comments:
-The Project does not comply with the principle of sustainable development;
-It will have a negative social impact as it involves uprooting the local people and resettlement of houses, churches and cemeteries;
- The destruction of the historical, archaeological, cultural, landscape and ethnographical heritage of the area.

Solution

The Roşia Montană Project (RMP) will be a catalyst for local and regional economic development. There will be a large number of impacts, some negative, but most positive. Beneficial impacts relating largely to the significant economic impact of the RMP and the fact that modern mining compliant to European Union (EU) and international standards will remediate historic pollution, will be maximised by involving local and regional governments and other relevant parties from the community in development initiatives as part of a participatory approach. Negative impacts related largely to resettlement issues will be mitigated through measures as described in the Environmental Impact Assessment Report Study (EIA).

To put the issue in larger context, the construction and operation of the RMP requires the acquisition of properties in four of Roşia Montană's 16 sub-comuna. For the most part, therefore, property ownership in the larger part of Roşia Montană will not be affected by the project. In fact, the number of homes that the company must purchase to construct and operate the project over the life of the mine – 379 homes – is far smaller than the 1000 homes project opponents regularly reference.

In order to acquire the necessary properties, the company has established a property purchase program compliant with the Resettlement and Relocation Action Plan (RRAP) guidelines developed by the World Bank

Of those properties needed but not yet acquired, 98% have been presented for surveying by their owners – a step that implies an interest in selling the property to the company. The survey rate suggests that little more than a handful of properties are held by people who might prove unwilling to entertain a sale.

Contrary to what the opponents of the mining project claim, no one wants to destroy churches or graveyards. To put the number of graves in context, the vast majority of Roşia Montană's 1905 graves will not be affected by the mining project, as the company has to the maximum extent possible designed the mining operations to leave established graveyards in place.

All reburials will be done at the request of the families, and the expense of Roşia Montană Gold Corporation (RMGC). The process will follow to the letter Romanian law on reburials [1] (art. 151 of Ordinance 536/1997) with the company's commitment to act with respect and reverence. Abandoned graves will be relocated, also with full respect and reverence, to Piatra Albă's new cemetery, for which 13 hectares have been set aside.

Two churches and 2 prayer houses out of a total of 10 places of worship located within the project's footprint must be relocated under the mine plan. Those churches will be moved in accordance with the wishes of the congregation, at the expense of RMGC. Church construction is a central element in the new community of Piatra Albă being built by the company.

What the RMP project offers to future generations is a chance to continue a way of life in a village where that future – with 70% unemployment today, rising above 90% if RMGC's proposed mine is not allowed to proceed – would be very much in doubt. In the event of Roşia Montană's demise, the graves and churches there would likely be left behind, as in other abandoned villages in the Romanian countryside.

Development of the RMP will keep the village alive and bring economic opportunity to the region.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

References:

[1] The applicable enactments regulating the relocation of graves and cemeteries are:

- (i) Law no. 489/2006 on the religious liberty and the general regime of religious affairs, published in the Romanian Official Gazette, Section I, no. 11/08.01.2007;
- (ii) Law no. 98/1994 on the establishing and sanctioning of the misdemeanors to the hygiene and public health legal norms, published in the Romanian Official Gazette, Section I, no. 317/16.11.1994, as subsequently amended and supplemented (“Law no. 98/1994”);
- (iii) The hygiene norms and recommendations concerning the population’s life environment, approved by Order no. 1028/2004, published in the Romanian Official Gazette, Section I, no. 140/03.07.1997, as subsequently amended and supplemented (“Order 536/1997”);
- (iv) GD no. 955/2004 on the approval of the framework Rules for the organization and operation of the public services for the administration of the public and private domain of local interest, published in the Romanian Official Gazette, Section I, no. 660/22.07.2004;
- (v) Order no. 261/1982 on the approval of the standard Rules for the administration of graveyards and the crematories of the localities, published in the Official Gazette no. 67/11.03.1983;

Rules for the organization and operation of the parish and monastery graveyards within the eparchies of the Romanian Orthodox Church, approved by Decision of the Religious Affairs Department no. 16.285/31.12.1981.

*

The implementation of the mining project does not entail the destruction or abandonment of the heritage values from Roşia Montană. After considering the importance of cultural heritage from Roşia Montană and current legislation, S.C. Roşia Montană Gold Corporation S.A. allocated US\$ 10 million budget to conduct the archaeological researches between 2001 and 2006, and RMGC estimates it will invest US\$ 25 million to research, conserve and restore the cultural heritage of Roşia Montană in the future.

Based upon the research and analyses of experts, the Roman galleries from Roşia Montană are considered to be important but not unique. An inventory of the Roman mining sites from the Transylvania and Banat regions was conducted for the Environmental Impact Assessment (EIA). This inventory shows that, from the perspective of history of Roman mining operations existing throughout the entire Roman Empire and especially in Dacia, Roşia Montană is not unique. There are at least 20 sites with similar characteristics to this site. From these 20 sites, the ones from Ruda Brad, Bucium – Vulcoi Corabia and Haneş – Amlaşul Mare areas have already provided definite data for an archaeological potential comparable to that of the ancient Alburnus Maior.

Prior to 1999, the Roman galleries from Roşia Montană hadn’t been surveyed by experts on mining archaeology, although they had been known for almost 150 years. Effectively, this type of archaeological remains had been rarely studied in Romania prior to 2000. Neither other archaeological remains from area do not benefit until 2000 by an adequate research, many from the information regarding this site originating from chance finds occasioned by works of agriculture, road constructions and mining infrastructure.

Today, after ample research developed during the last 8 years, the nature, specific features and the heritage assets distribution are well known – archaeological sites, historical monument buildings, as well as churches and cemeteries from Roşia Montană. The ample researches and heritage studies carried out during the period 2000-2006 allowed a comprehensive image of these assets belonging to the cultural national heritage and of the areas with spiritual significance, as well as the adoption of specific measures as regards their protection and enhancement.

Starting in 1999 and still continuing, the mining archaeology researches conducted by a specific team from University Toulouse Le Mirail (France) coordinated by Beatrice Cauuet, PhD have been intended to establish for the first time in Romania a detailed study of these types of archaeological remains, of ancient mining galleries from Roman and later periods. Detailed heritage researches and studies conducted

between 2000 and 2006 have allowed us to outline a comprehensive picture of these assets that belong to the national cultural heritage, and also to adopt several specific measures for their protection.

The survey of these structures led to a better understanding of them and at the same time has led to several pertinent decisions on their conservation and enhancement. Based on the researches conducted so far (specifically for Cetate, Cârnic, and Jig, and currently in development for Orlea) the following decisions for conservation and development of the following sites have been taken:

- Cătălina Monulești Gallery – a gallery located in the Historic Center of Roșia Montană, where a significant series of wax-coated tablets has been discovered together with an ancient mine dewatering system;
- Păru Carpeni mining sector – located in the SE area of Orlea, where a system of overlapped chambers has been discovered that was equipped with Roman wooden mine dewatering installations (wheels, channels, etc.);
- Piatra Corbului area – located in the SE area of Cârnic, where traces of mining operations excavated through the fire and water technique have been discovered dating to Roman and medieval times.
- Văidoaia area – within the NE area of Roșia Montană, where areas of open pit mining operations are maintained, dating as back as the Roman period.

Through the preventive archaeological researches conducted between 2001 and 2006, 13 archaeological sites have been outlined and researched, and for some of them, a decision regarding their archaeological discharge has been taken upon completion of exhaustive researches, and in other cases a decision regarding their in-situ conservation has been taken – for example the funerary monument from Tăul Găuri, the Roman remains existing at Carpeni Hill; and the Orlea area will be researched in detail between 2007 and 2012 through surface and underground investigations.

Reopening, consolidation and development works have been scheduled for the historic mining galleries that date to Roman times and have been discovered within the mining sectors of Cătălina Monulești and Păru Carpeni. These works will allow their in-situ conservation and development for tourist visits. This decision has considered the value and the significance of the exceptional archaeological remains surviving in these galleries, and the Roman wood installations that were created during Roman times for draining the mine waters (the so-called “Roman Wheels”). At the same time, Cătălina Monulești Gallery is the famous one where the most significant series of wax-coated tablets were discovered in the middle of 19th Century (according to historic archive resources, this refers to about 11 pieces from a total of 32 artifacts).

Most of the Roman mining works from Cârnic, (but also from other mining sectors) are only accessible under difficult conditions by experts; public access being practically impossible. Moreover, the safety requirements for the development of similar museum activities from the EU (that will become laws in Romania) are not compatible with the transformation of the Roman galleries that are permanently exposed to several serious risk factors within an area designated for tourism. We emphasize that major parts of the Roman galleries will be preserved in situ. As a measure of minimizing this impact, the experts have proposed establishing a three-dimensional computer model of these structures based on full research and publishing the results, as well as creating 1:1 replicas of these galleries within the proposed museum from Roșia Montană.

In Orlea, the researches conducted so far have been preliminary in nature. Orlea is the only area where currently there are antic mining vestiges, according to LMI 2004 Roman Mining Operations from Alburnus Maior, Orlea area (code LMI AB-I-m-A-00065.02). The detailed research of this area is scheduled for 2007 – 2012 and upon completion, all necessary measures may be taken as required by the law: either for in situ preservation of several parts or the application for the archaeological discharge procedure for some of the remains. Further details regarding chance archaeological discoveries and preliminary archaeological researches (surface and underground) conducted at Orlea have been published in the EIA of the Roșia Montană Project, vol. 6 – Cultural Heritage Baseline Report, Annex I, p. 231-234. It is important to mention that the report states: “*Site development plans for the Project will not result in impacts or construction activities in the Orlea area, which will be investigated starting with 2007. As a result, construction activities will not begin in these areas until proper archaeological investigation consistent with Romanian law and international best practice is concluded.*” (Cultural Heritage Baseline Report, vol. 6, p. 46).

Taking into account the results of the research, the opinions of experts, and the decisions of competent

authorities, a budget of US \$25 million has been established by the company to conduct further researches, to preserve and restore the cultural heritage of Roșia Montană during the following years, as part of the implementation of the mining project, as stated by the EIA in May 2006 (see Report of the Environmental Impact Assessment Study, vol. 32, Cultural Heritage Management Plan for Roșia Montană area, p. 84-85). The proposals include the continuation of researches within the Orlea area; especially the creation of a **modern Museum of Mining** with exhibits of **geology, archeology, industrial heritage and ethnography**; the development of tourist access to the **Cătălina-Monulești** Gallery; and to the monument from **Tău Găuri**; together with the **conservation and restoration of the 41 historical monument buildings and of Roșia Montană Historic Center**.

For a further synopsis on the researches and on the main discoveries related to the historic galleries from Roșia Montană, and to read the conclusions of experts on this matter, and also the assessments performed in order to establish a tourist route dedicated to historic mining structures from Cărnic, and the opinions issued by Mr. Edward O'Hara, General Rapporteur on the Cultural Heritage of the Parliamentary Assembly of European Council, please see the annexes entitled "Information on Roșia Montană Cultural Heritage and Related Management Aspects" as well as the annexed Romanian version of the O'Hara Report. Detailed information regarding the complex issues of surveying ancient mining works from Roșia Montană, the results and the potential subsequent developments is available in the EIA of Roșia Montană Project, vol. 6 – Baseline Conditions Report, p. 32, 35-58, 83-109.

To conclude, under no circumstances was the destruction of cultural heritage from Roșia Montană or mere replacement of some original remains with replicas discussed. The archaeological research performed at Roșia Montană, usually known as preventive/rescue archaeology, as well as the heritage related studies are conducted everywhere in the world in close connection with the economic interest for certain areas, and its related costs including the development or maintenance costs of the preserved areas are ensured by those who are making the prospective investment. Therefore, a public-private partnership is established to protect cultural heritage pursuant to the provisions of Malta Convention (1992) on the protection of archaeological heritage [1].

It must be emphasized that in addition to the commitments assumed by RMGC with respect to the protection and conservation of archaeological remains and historic monuments, an entire series of duties belong to local public authorities from Roșia Montană and Alba County, together with central public authorities, and Romanian Government respectively. The Cultural Heritage Management Plans included in the report on the EIA Study provide clarifications on these issues. (see Report on EIA Study, volume 32, Archaeological Heritage Management Plan for Roșia Montană area, p. 22-24, 49, 55-56, 71-72 and the Report on EIA Study, volume 33, Management Plan for Historic Monuments and Protected areas of Roșia Montană area, p. 28-29, 47-50, 51-53, 65-66, p. 103 – Annex 1).

All of the commitments assumed publicly by the company are detailed in the report on EIA Study, volume 33, Cultural Heritage Management Plan.

References:

[1] The text of the Convention is available at the following web page: <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=8&DF=7/6/2006&CL=ENG>

Item no. 3129

No. to identify the observations received from the public No. 112147/25.08.2006

Proposal The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project

As regarding your request, we mention that art. 44 (3) of the Minister of Waters and Environment Protection Order no. 860/2002 on the environment impact assessment and the issuance of environmental agreements Procedures ("Order no. 860/2002") provides that "*based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report on the environmental impact assessment study with an appendix comprising solutions for the solving of the indicated issues*".

Solution Consequently, considering the fact that your proposal is just an allegation which does not indicate possible problems, nor provide additional information, we mention that the decision on the issuance or refusal of the environment approval cannot be made only by considering a simple proposal, but according to certain objective criteria provided by the wording of art. 45 of the Order no. 860/2002 and only after examining:

- the report on the environmental impact assessment study;
- the conclusions of the parties involved in the assessment;
- the possibilities to implement the project;
- the titleholder answers to the grounded proposals/comments of the public.

Item no.	3130 Same as: 3131, 3132, 3133
No. to identify the observations received from the public	No. 112158/25.08.2006 Same as: No. 112161/25.08.2006, No. 112160/25.08.2006, No. 112159/25.08.2006
Proposal	<p>The questioner requests the MEWM not to emit the environment permit for the Roşia Montană mining project. The questioner formulated remarks and proposals as follows:</p> <ul style="list-style-type: none"> - The total costs for the mine closure are unrealistic; - The financial guarantees have not been established; - There is no liner proposed for the tailings pond; - The EIA report does not stipulate financial guarantees destined to secure the waste rock deposit. - There is not a Safety Report submitted for the public consultation and evaluation by the competent authorities; - The EIA report does not assess the "zero alternative"; - The Project poses a threat for the protected flora and fauna; - S.C. Roşia Montană Gold Corporation S.A. does not comply with the provisions of the art.11 from the Mining Law 85/2003 <p>The EIA report does not contain an impact assessment of the phenomenon "cyanide rain" caused by the cyanide evaporation from the tailings management facility and a description of the trans-boundary impact in case of accident on some natural important areas such as Koros Maros National park from Hungary located along the Mureş valley</p>
Solution	<p>The mine closure costs are not unrealistic. RMGC's closure estimates, which were developed by a team of independent experts with international experience and will be reviewed by third party experts, are based on the assumption that the project can be completed according to the plan, without interruptions, bankruptcy or the like They are engineering calculations and estimates based on the current commitments of the closure plan and are summarized in the EIA's Mine Closure and Rehabilitation Management Plan (Plan J in the EIA). Annex 1 of Plan J will be updated using a more detailed approach looking at every individual year and calculating the amount of surety, which must be set aside year by year to rehabilitate the mine before RMGC is released from all its legal obligations. Most importantly, the current estimates assume the application of international best practice, best available technology (BAT) and compliance with all Romanian and European Union laws and regulations.</p> <p>Closure and rehabilitation at Roşia Montană involves the following measures:</p> <ul style="list-style-type: none"> • Covering and vegetating the waste dumps as far as they are not backfilled into the open pits; • Backfilling the open pits, except Cetate pit, which will be flooded to form a lake; • Covering and vegetating the tailings pond and its dam areas; • Dismantling of disused production facilities and revegetation of the cleaned-up areas; • Water treatment by semi-passive systems (with conventional treatment systems as backup) until all effluents have reached the discharge standards and need no further treatment; • Maintenance of the vegetation, erosion control, and monitoring of the entire site until it has been demonstrated by RMGC that all remediation targets have been sustainably reached. <p>While the aspects of closure and rehabilitation are many, we are confident in our cost estimates because the largest expense – that incurred by the earthmoving operation required to reshape the landscape – can be estimated with confidence. Using the project design, we can measure the size of the areas that must be reshaped and resurfaced. Similarly, there is a body of scientific studies and experiments that enable scientists to determine the depth of soil cover for successful revegetation. By multiplying the size of the areas by the necessary depth of the topsoil by the unit rate (also derived from studying similar earthmoving operations at similar sites), we can estimate the potential costs of this major facet of the rehabilitation operation. The earthmoving operation, which will total approximately US \$65 million, makes up 87% of closure and rehabilitation costs.</p> <p>Also, the necessity of additional technological measures to stabilize and reshape the tailings surface will be</p>

discussed in the update of the Economical Financial Guarantee (EFG) estimate, which leads to an increase the provisions for tailings rehabilitation, especially if the TMF is closed prematurely and no optimized tailings disposal regime is applied. The exact figures depend on the details of the TMF closure strategy which can be finally determined only during production

We believe that – far from being unrealistic – our cost estimates are evidence of our high level of commitment to closure and rehabilitation. Just as a comparison, the world’s largest gold producer has set aside US \$683 million (as of December 31, 2006) for the rehabilitation of 27 operations, which equates to US \$25 million on average per mine. The RMGC closure cost estimates, recently revised upward from the US \$73 million reported in the EIA based on additional information, currently total US \$76 million.

*

Information regarding our Environmental Financial Guarantee (“EFG”) is fully discussed in the section of the Environmental Impact Assessment titled “Environmental and Social Management and System Plans” (Annex 1 of the subchapter titled “Mine Rehabilitation and Closure Management Plan”). The EFG is updated annually and will always reflect the costs associated with reclamation. These funds will be held in protected accounts at the Romanian state disposal.

In Romania, the creation of an EFG is required to ensure adequate funds are available from the mine operator for environmental cleanup. The EFG is governed by the Mining Law (no. 85/2003) and the National Agency for Mineral Resources instructions and Mining Law Enforcement Norms (no. 1208/2003).

Two directives issued by the European Union also impact the EFG: the Mine Waste Directive (“MWD”) and the Environmental Liability Directive (“ELD”).

The Mine Waste Directive aims to ensure that coverage is available for 1) all the obligations connected to the permit granted for the disposal of waste material resulting from mining activities and 2) all of the costs related to the rehabilitation of the land affected by a waste facility. The Environmental Liability Directive regulates the remedies, and measures to be taken by the environmental authorities, in the event of environmental damage created by mining operations, with the goal of ensuring adequate financial resources are available from the operators for environmental cleanup efforts. While these directives have yet to be transposed by the Romanian Government, the deadlines for implementing their enforcement mechanisms are 30 April 2007 (ELD) and 1 May 2008 (MWD) – thus before operations are scheduled to begin at Roşia Montană.

RMGC has already begun the process of complying with these directives, and once their implementation instruments are enacted by the Romanian Government, we will be in full compliance.

Each EFG will follow detailed guidelines generated by the World Bank and the International Council on Mining and Metals.

The current projected closure cost for Roşia Montană is US \$76 million, which is based on the mine operating for its full 16-year lifespan. The annual updates will be completed by independent experts, carried out in consultation with the NAMR, as the Governmental authority competent in mining activities field. These updates will ensure that in the unlikely event of early closure of the project, at any point in time, each EFG will always reflect the costs associated with reclamation. (These annual updates will result in an estimate that exceeds our current US \$76 million costs of closure, because some reclamation activity is incorporated into the routine operations of the mine.)

A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit;
- Trust funds;
- Letter of credit;
- Surety bonds;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

*

An engineered liner is included in the design of the Tailings Management Facility (TMF) basin to be protective of groundwater. Specifically, the Roşia Montană Tailings Management Facility (TMF or “the facility”) has been designed to be compliant with the EU Groundwater Directive (80/68/EEC), transposed as Romanian GD 351/2005. The TMF is also designed for compliance with the EU Mine Waste Directive (2006/21/EC) as required by the Terms of Reference established by the MEWM in May, 2005. The following paragraphs provide a discussion of how the facility is compliant with the directives.

The TMF is composed of a series of individual components including:

- the tailings impoundment;
- the tailings dam;
- the secondary seepage collection pond;
- the secondary containment dam; and
- the groundwater monitoring wells/extraction wells located downstream of the Secondary Containment dam.

All of these components are integral parts of the facility and necessary for the facility to perform as designed.

The directives indicated above require that the TMF design be protective of groundwater. For the Roşia Montană project (RMP), this requirement is addressed by consideration of the favorable geology (low permeability shales underlying the TMF impoundment, the TMF dam, and the Secondary Containment dam) and the proposed installation of a low-permeability (1×10^{-6} cm/sec) recompacted soil liner beneath the TMF basin. Please see Chapter 2 of EIA Plan F, “The Tailings Facility Management Plan” for more information.

The proposed low permeability soil liner will be fully compliant with Best Available Techniques (BAT) as defined by EU Directive 96/61 (IPPC) and EU Mine Waste Directive. Additional design features that are included in the design to be protective of groundwater include:

- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline,
- A series of monitoring wells, below the toe of the secondary containment dam; to monitor seepage and ensure compliance, before the waste facility limit.

In addition to the design components noted above specific operational requirements will be implemented to be protective of human health and the environment. In the extremely unlikely case that impacted water is detected in the monitoring wells below the secondary containment dam, they will be converted to pumping wells and will be used to extract the impacted water and pump it into the reclaim pond where it will be incorporated into the RMP processing plant water supply system, until the compliance is reestablish.

*

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A number of different financial instruments are available to ensure that RMGC is capable of covering all of the expected closure costs. These instruments, which will be held in protected accounts at the Romanian state disposal, include:

- Cash deposit;
- Trust funds;
- Letter of credit;
- Surety bonds;
- Insurance policy.

Under the terms of this guarantee, the Romanian government will have no financial liability in connection with the rehabilitation of the Roşia Montană project.

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The Security Report has been made available for public access by being posted at the following Internet address http://www.mmediu.ro/dep_mediu/rosia_montana_securitate.htm as well as through the printed version which could have been found at several information locations established for public hearings.

*

The EIA Report considered all alternative developments, including the option of not proceeding with any project – an option that would generate no investment, allowing the existing pollution problems and socio-economic decline to continue. (Chapter 5 – Assessment of Alternatives)

The report also considered alternative developments – including agriculture, grazing, meat processing, tourism, forestry and forest products, cottage industries, and flora/fauna gathering for pharmaceutical purposes – and concluded that these activities could not provide the economic, cultural and environmental benefits brought by the Roşia Montană Project.

Chapter 5 also examines alternative locations for key facilities as well as alternative technologies for mining, processing and waste management, in line with best practice and as compared against published EU best available techniques (BAT) documentation.

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The impact on the protected flora and fauna will be obvious only at local level, and it will not lead to the disappearance of any species. The mining project was conceived from the onset so as to comply with the conditions and standards stipulated by the Romanian and European legislation in the field of environmental protection.

The company believes that the environmental impact generated by proposed project remains significant the more so as it will cover the pre-existing ones. But the required investments for the ecological restoration/rehabilitation of the Roșia Montană area meant to solve complex environmental issues existing at present can be developed only after the implementation of economic projects able to generate and ensure that direct and responsible measures are taken, as part of the principles that represent the basis for the sustainable development concepts. The presence of a strong economic system is the key for the implementation of clean economic processes and technologies, in full respect of the environment, which are able to remove the previous effects generated by anthropic activities.

The documentation drafted to support this mining project represents an objective justification for its implementation given that the company assumed the environmental responsibility, which is extremely complex in the Roșia Montană area.

Some of species existing at Roșia Montană that are under a certain protection status represent an insignificant percentage from populations estimated at national level. The characterization of species from their habitat point of view exists in the species tables presented in the Biodiversity Chapter of the EIA Report and its annexes, although this is not a requirement imposed by the Habitats Directive. Given the large amount of information contained, these tables are available in the electronic format of the EIA. 6000 DVD/CDs comprising the EIA Report have been made available to the public both in English and in Romanian. Moreover, the EIA is also available on RMGC's website as well as on the websites of the Ministry of Environment and Waters Management and of the Local and Regional Environment Protection Agencies of Alba County, Cluj County and Sibiu County, etc.

From practical point of view, the low value of conservation of the impact area is also indirectly emphasized by the fact that there is no proposal to designate the area a SPA (aviafaunistic special protected area) and by the denial as unfounded of the proposal to designate the area as a pSCI area (sites of community importance).

Taking all these into account, we believe that the proposed Project is compliant with the provisions of EU Directive no. 92/43 Habitats[1], and EU Directive no. 79/409 Birds[2] respectively, especially because within Biodiversity Management Plan, Plan H, several active and responsible measures are provided to restore/rehabilitate several natural habitats, pursuant to the provisions of the same documents [3].

References:

[1] art.3, 2nd paragraph, Each Member State shall contribute to the creation of Natura 2000 (network) in proportion to the representation within its territory of the natural habitat types and the habitats of species referred to in paragraph 1. To that effect each Member State shall designate, in accordance with Article 4, sites as special areas of conservation taking account of the objectives set out in paragraph 1.

art.4, 1st paragraph. On the basis of the criteria set out in Annex III (Stage 1) and relevant scientific information, each Member State shall propose a list of sites indicating which natural habitat types in Annex I and which species in Annex II that are native to its territory the sites host. For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction. Where appropriate,

Member States shall propose adaptation of the list in the light of the results of the surveillance referred to in Article 11. [...]

2nd paragraph.[...] Member States whose sites hosting one or more priority natural habitat types and priority species represent more than 5 % of their national territory may, in agreement with the Commission, request that the criteria listed in Annex III (Stage 2) be applied more flexibly in selecting all the sites of Community importance in their territory. [...]

Art. 6. 4th paragraph. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Art. 16. Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):[...]

- in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

[2] Art.4, 1st paragraph. The species mentioned in annex 1 shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. [...]

Trends and variations in population levels shall be taken into account as a background for evaluations. Member states shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this directive applies.

[3] Directive 92/43 Habitats, art. 2, 2nd paragraph; Directive 79/409 Birds, art. 3, 2nd paragraph, letter c.

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The possibility for a “cyanide rain” phenomenon to occur doesn’t exist. Moreover, the specialty literature does not indicate a phenomenon called “cyanide rain”; it is known and researched only the “acid rains” phenomenon that has no connection with the behavior of the cyanide compounds in the atmosphere.

The reasons for stating that no “cyanide rains” phenomenon will ever occur are the followings:

- The sodium cyanide handling, from the unloading from the supplying trucks up to the processing tailings discharge onto the tailings management facility, will be carried out only in liquid form, represented by alkaline solutions of high pH value (higher than 10.5 – 11.0) having different sodium cyanide concentrations. The alkalinity of these solutions has the purpose to maintain the cyanide under the form of cyan ions (CN⁻) and to avoid the hydrocyanic acid formation (HCN), phenomenon that occurs only within environments of low pH;
- The cyanide volatilization from a certain solution can not occur under the form of free cyanides, but only under the form of HCN;
- The handling and storage of the sodium cyanide solutions will take place only by means of some closed systems; the only areas/plants where the HCN can occur and volatilize into air, at low emission percentage, are the leaching tanks and slurry thickener, as well the tailings management facility for the processing tailings;
- The HCN emissions from the surface of the above mentioned tanks and from the tailings management facility surface can occur as a result of the pH decrease within the superficial layers of the solutions (that helps the HCN to form) and of the desorption (volatilization in air) of this compound;
- The cyanide concentrations within the handled solutions will decrease from 300 mg/l within the leaching tanks up to 7 mg/l (total cyanide) at the discharge point into the tailings management

- facility; the drastic reduction of the cyanide concentrations for discharging into the Tailings Management Facility (TMF) will be done by the detoxification system;
- The knowledge of cyanide chemistry and on the grounds of past experiences, we estimated the following possible HCN emissions into air: 6 t/year from the leaching tanks, 13 t/year from the slurry thickener and 30 t/year (22.4 t, respectively 17 mg/h/m² during the hot season and 7.6 t, respectively 11.6 mg/h/m² during the cold season) from the tailings management facility surface, which totals 134.2 kg/day of HCN emission;
 - Once released, the hydrocyanic acid is subject to certain chemical reactions at low pressure, resulting ammonia;
 - The mathematical modeling of the HCN concentrations within the ambient air (if the HCN released in the air is not subject to chemical reactions) emphasized the highest concentrations being at the ground level, within the industrial site namely within the area of the tailings management facility and within a certain area near the processing plant; the maximum concentration being of 382 µg/m³/h;
 - The highest HCN concentrations within the ambient air will be 2.6 times lower than the limit value stipulated by the national legislation for labor protection;
 - The HCN concentrations within the ambient air from the areas situated up to 2 km towards the north-eastern vicinity of the industrial site will be of 4 to 80 µg/m³/h, more than 250 – 12.5 times lower than limit value stipulated by the national legislation for labor protection;
 - Once released in the air, the evolution of the HCN implies an insignificant component resulted from the reactions while liquid (water vapors and rain drops). HCN is weak water-soluble at partial, low pressures (feature of the gases released in open air), and the rain will not effectively reduce the concentrations in the air (Mudder, et al., 2001, Cicerone and Zellner, 1983);
 - The probability that the HCN concentration value contained by rainfalls within and outside the footprint of the Project to be higher than the background values (0.2 ppb) is extremely low.

On the basis of the above presented information, it is very clear that HCN emissions may have a certain local impact on atmosphere quality, restricted to well within legislated limits as described above, but their implication within a possible trans-boundary impact on air quality is excluded.

Also, the specialty literature doesn't comprise information related to the effects of a potential exposure of the vegetation or ecosystems to HCN and neither the effects of the fauna health as a result of inhaling the HCN polluted air.

For details referring to the use of cyanide in the technological processes, the cyanides balance as well as the cyanide emission and impact of the cyanides on the air quality, please see the Environmental Impact Assessment (EIA) Report, Chapter 2, Chapter 4.1 and Chapter 4.2.

The EIA Report (Chapter 10, Transboundary Impacts) assesses the proposed project with regard to potential for significant river basin and transboundary impacts downstream which could, for example, affect the Mures and Tisa river basins in Hungary. Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.

The issue of a possible accidental large-scale release of tailings to the river system was recognized to be an important issue during the public meetings when stakeholders conveyed their concern in this regard. As a result, further work has been undertaken to provide additional detail to that provided in the EIA Report on impacts on water quality downstream of the project and into Hungary. This work includes modelling of water quality under a range of possible operational and accident scenarios and for various flow conditions.

The model used is the INCA model developed over the past 10 years to simulate both terrestrial and aquatic systems within the EUROLIMPACS EU research program (www.eurolimpacs.ucl.ac.uk). The model has been used to assess the impacts from future mining, and collection and treatment operations for pollution from past mining at Roşia Montană.

The modelling created for Roşia Montană simulates eight metals (cadmium, lead, zinc, mercury, arsenic, copper, chromium, manganese) as well as Cyanide, Nitrate, Ammonia and dissolved oxygen. The model has been applied to the upper catchments at Roşia Montană as well as the complete Abrud-Arieş-Mureş river system down to the Hungarian Border and on into the Tisa River. The model takes into account the

dilution, mixing and physico-chemical processes affecting metals, ammonia and cyanide in the river system and gives estimates of concentrations at key locations along the river, including at the Hungarian Boarder and in the Tisa after the Mureş joins it.

Because of dilution and dispersion in the river system, and of the initial EU BAT-compliant technology adopted for the project (for example, the use of a cyanide destruct process for tailings effluent that reduces cyanide concentration in effluent stored in the TMF to below 6 mg/l), even a large scale unprogrammed release of tailings materials (for example, following failure of the dam) into the river system would not result in transboundary pollution. The model has shown that under worse case dam failure scenario all legal limits for cyanide and heavy metals concentrations would be met in the river water before it crosses into Hungary.

The INCA model has also been used to evaluate the beneficial impacts of the existing mine water collection and treatment and it has shown that substantial improvements in water quality are achieved along the river system under normal operational conditions.

For more information, an information sheet presenting the INCA modelling work is presented under the title of the Mureş River Modelling Program and the full modelling report is presented as Annex 5.1.

Item no. 3134

No. to identify the observations received from the public No. 112944/ 25.08.2006

Proposal

The questioners do not agree to the utilization of the technology on cyanide basis for the gold and silver recovery within the "Roşia Montană" mining project. The questioners request the MEWM the project postponing until nonpolluting technologies will be available

Both the metal recovery technology using cyanide in the carbon-in-leach (CIL) procedure and the use of the cyanide detoxification circuit based on the SO₂/Air procedure are considered to be the best available technologies, being widely used in the entire world. The cyanide content to be discharged in the tailings management facility will be below the minimum content admitted by the European regulations.

The use of cyanide in the Roşia Montană project is the result of processing tests conducted upon several gold recovery technologies (see Chapter 5 – Alternatives). Given the features of the deposit (disseminated mineralization, reduced concentrations of useful mineral substances) identified through a multi-criteria analysis, cyanidation was considered to be the only feasible technology that implies acceptable risks and a potential impact that is easy to control, due to the current technological level of mining industry. Concerning the alternative methods available, in order to increase the recoverability of gold, the use of highly toxic substances is also required, such as mercury or ore roasting, generating sulphuric acid, which is highly toxic. These methods will not be used to process the Roşia Montană ores.

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Solution

Any human activity implies a potential impact on environmental media. It depends on the proposed technology and how related risks are kept under control, in order to prevent / eliminate such impact. Any mining activity causes alteration of the relief, and generates a significant local impact on the environmental media; however, through the use of the best available technologies and a progressive ecological restoration strategy, the impact and risks related to mining activities may be kept under control, and minimized/eliminated.

In the case of Roşia Montană Project, the proposed technology is the result of a multi-criteria analysis that has taken into consideration the features of the site and the deposit. The elements that lead to the selection of the proposed technologies have taken into consideration the deforestation of smallest possible areas, affecting an optimal number of properties and equitable compensation, according to the principle of equality. Consequently, the highest impact affects the areas that have already been affected by the 2,000 year old mining activities. Churches and historical monuments will be protected by buffer zones and management plans for their restoration and enhancement.

The proposed technologies are the best available techniques to date, worldwide, and it is highly unlikely that the future mining technologies to be discovered will not have any environmental impact or will not generate any pollution.

All alternative technologies have been analyzed in detail in Chapter 5 of the EIA Report, and the impact upon the environmental media and population health has been the most important criterion based on which the proposed solutions have been selected.

Item no. 3135

No. to identify the observations received from the public No. 112122/25.08.2006

The questioner requests the MEWM not to emit the environment permit for Roşia Montană mining project.

Proposal The questioner formulated comments as follows:
- The project may be a catastrophe for the Rosia Montana area
- The property right is fragrantly encroached
- The future for the area is tourism
- Within area there are archeological vestiges

We disagree that the project may be a catastrophe for the Roşia Montană area. On the contrary, it offers numerous benefits to the region, including direct and indirect employment, environmental rehabilitation of pollution caused by past poor mining practices, preservation of the area's cultural and mining heritage, and social benefits.

The Project will operate in compliance with relevant mandatory Romanian and European law and in accordance with international best practices. It will bring best available techniques (BAT) to Romania for the first time. The project has been carefully designed.

Before submission of the EIA, RMGC changed various parts of the proposal, notably a reduction in the size of several proposed pits as well as enhancing sustainable development activities, and a stronger commitment to preservation of cultural patrimony including a reduced impact on local churches, in response to stakeholder consultations. From the reactions to the proposal in our extensive efforts at public consultation, we are confident that the vast majority of the people of Roşia Montană support the project.

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Solution According to the relevant legal provisions, the interested public may submit justified proposals on the environment impact assessment. Art. 44 (3) of the Order no. 860/2002 on the Environment Impact Assessment Procedure and the issuance of the environmental approval provides to this end that „*based on the results of the public debate, the relevant authority for the environmental protection evaluates the grounded proposals/comments of the public and requests the titleholder the supplementation of the report to the environmental impact assessment study with an annex containing solutions for the solving of the underlined issues*”.

As the statement of the attendant to the public consultations (i) does not contain any specific indications on the alleged facts, and (ii) identifies and specifies no problems in regard of the project initiated by RMGC, subject to the environmental impact assessment procedure, RMGC is not in position to answer and has not the capacity to make any comments to this end.

Nonetheless, considering RMGC has expressed its full availability to discuss any issues relevant for the proposed project, please note the following:

RMGC is in complete compliance with all legal provisions associated with the acquisition of property in Roşia Montană. In this respect, RMGC observes the legal methods for a titleholder to acquire the usage right over the lands necessary for mining projects development, covering both public and private domain, as provided by art. 6 of the Mining Law no. 85/2003: (i) sale-purchase, for the price agreed upon by the parties; (ii) land exchange, with the relocation of the affected owner and the reconstruction of the buildings on the newly granted land, on the expense of the titleholder benefiting of the cleared land, as per the convention between the parties; (iii) renting of the land for undetermined period, based on agreements between the parties, (iv) land concession, etc.

The company's RRAP is based on voluntary sale of property, designed under World Bank Standards.

Of the small number of homes that are located in areas in which the construction and early operation of the mine will take place, the company will seek options to redesign the mine plan to allow those owners to retain their property, unaffected by the mine.

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It is true that tourism may be a potential source of revenue and sustainable development for Roşia Montană and the region. There is, however, a vast difference between proposing tourism as an alternative or substitute for a major industrial project – and the development of tourism over time supported by the infrastructure investments driven by a large industrial project.

The former – for Roşia Montană, “tourism with no mine” – is not viable on its own, and certainly not in comparison to a plan to develop tourism over time with the help of infrastructure investment.

The development of Roşia Montană's tourism potential is one potential form of sustainable development..

Chapter 5 of the Environmental Impact Assessment Study Report (EIA) identifies and assesses project alternatives, including tourism. Importantly, the EIA concludes that the project does not preclude the development of other industries such as tourism. On the contrary, the mining project would remove some of the existing significant impediments to establishment of other industries, such as pollution, poor access and other problems that have arisen through lack of inward investment. As described in Volume 14, 4.8 Social and Economical Environment, and in Volume 31, Community Sustainable Development Management Plans, there are currently some tourism activities in Roşia Montană. However the tourism industry is not at present a significant economic driver.

As the Roşia Montană Project (RMP) affects only 4 of Roşia Montană's 16 sub-comuna Roşia Montana could continue to develop its tourism potential. There are initiatives to do so, such as “Tourism development model and its contribution to sustainable development in Zlatna, Bucium, Roşia Montană and Baia de Arieş as alternative to mono-industrial mining activities” prepared by the National Institute for Research and Development in Tourism (INCDT) published in April 2006, just as the EIA was being submitted to the Ministry of Environment and Water Management (MEWM).

Roşia Montană Gold Corporation (RMGC) has also commissioned a study which sets out how the potential tourism markets and how these might best be approached in an integrated project:

“From experience, tourism will be possible and profitable only when there is something to offer to tourists in terms of clean environment, proper infrastructure (good roads, accommodation, restaurants, running water, proper sewage system, waste disposal facilities, etc.), attractions (museums, other things to see such as historical monuments, etc). A mining project such as the one proposed by RMGC will provide, through taxes, and the development of service industries, the necessary funds to improve the infrastructure. Through the RMP and its heritage management plans, US\$25 million will be invested by the company in the protection of cultural heritage in such a way to support tourism. A training program will provide the necessary skills to develop tourist activities and the Roşia Montană Micro Credit will support people in starting pensions, restaurants, etc., all needed for attracting tourists. At the end of the project, there will be a new village, plus the restored old centre of Roşia Montană with a museum, hotels, restaurants and modernized infrastructure, plus restored mining galleries (e.g. Cătălina Monuleşti) and preserved monuments such as the one from Tău Găuri- all of which would serve as tourist attractions. Further to this, it is understood that the government will be acting locally to encourage economic growth. (see Roşia Montană Initial Tourism Proposals Gifford Report 13658.R01).

Clearly, planning restrictions will apply to areas that could be affected by the operation of the project, but this will be for a limited time and through its Community Sustainable Development Plan (Volume 31 of the EIA report), RMGC undertakes to lay the foundations for development of long term projects, such as tourism. The General Urbanism Plan (PUG) prepared in 2000 and approved in 2002 is a document endorsed by the Local Council after being submitted to a public consultation process within the local community. The PUG has been presented and debated within 11 council meetings and public debates. The

industrial area is outlined through this PUG, but this area is not suitable for tourist activities. At the same time a protected area has also been outlined. Once the Zonal Urbanism Plan (PUZ) is endorsed by Roşia Montană Local Council, tourist activities (pensions, restaurants, etc.) may be developed within this area. The PUZ detailing the land surface required by the RMP affects only about 25% of Roşia Montană commune. Although some businesses have already been established on the remaining 75% of the Commune, once the PUZ is finalised, business start-up will be further encouraged.

There are good examples where tourism and mining has been carried on side by side. The examples of the Martha Gold Mine, in Waihi, New Zealand and the Rio Narcea Gold Mine in Spain have been cited and the latter is documented in the EU “Best Reference” document for management of mining wastes. This is because these mines are operated efficiently, safely and with care of the environment. Because these mines are located in districts with a long history of mining, visitors can be shown mining technology old and new. Roşia Montană is in a good position to take similar advantage of its mining history and RMGC proposes to manage its operations in line with this best practice. Other related examples have been discussed in Roşia Montană Initial Tourism Proposals.

For more information, please see Roşia Montană Sustainable Development and the Roşia Montană Project – annex 4.

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We underline the fact that the implementation of the mining project doesn't imply the destruction and the abandonment of the archaeological heritage values from the Roşia Montană area and that the existence of these vestiges has been fully considered. Till 2000, Roşia Montană could have been described as an area having archaeological potential where no archaeological excavations have been developed. These works would have been necessary to outline in detail various components of the site. In fact in the area of Cetate, Cărnic, Jig and Orlea Massifs, which are located in the upper part of the Roşia Valley and Corna Valley respectively, in the administrative radius of Roşia Montană commune, there have been known a series of random archaeological discoveries – epigraphic monuments, funerary architecture items – which were providing enough clues to assume the existence of some archaeological sites. The other heritage values from Roşia Montană – ponds, historic monument buildings, traditions and habits – have been known in general, but only in 2001 the Ministry of Culture and Religious Affairs has decided to deal with this complex issue in a consistent manner.

Nowadays, after ample research works that have been developed during the last 7 years, their nature, characteristics and the distribution of the heritage values are well known – archaeological sites, historic monument buildings, as well as churches and cemeteries from the Roşia Montană area. Ample researches and heritage studies that have been developed during 2000-2006 have allowed the delineation of an image that incorporates these values belonging to the national cultural heritage and to the areas having spiritual value, as well as adopting some specific measures with regard to their protection.

Therefore, in compliance with the requirements of the Ministry of Environment and Water Management, and the Ministry of Culture and Religious Affairs in the framework of the Report on Environmental Impact Assessment Study for the Roşia Montană Project, specific management plans have been prepared in order to manage and conserve the heritage values from the Roşia Montană area, in the framework of the implementation of the mining project (see the Report on Environmental Impact Assessment, volume 32-33, Plan M – Cultural Heritage Management Plan, part I – Management Plan for Archaeological Heritage from Roşia Montană area, part II – Management Plan for Historic Monuments and Protected Areas from Roşia Montană, part III – Cultural Heritage Management Plan).

In order to provide a synopsis to the opinions formulated by you, we state the followings:

- Roman galleries located in the massifs from the southern half of the Roşia Valley have been minutely researched and specific conservation measures have been recommended for the Cătălina Monuleşti and Pietra Corbului areas;
- Roman galleries located in the northern half of the Roşia Valley have been preliminary researched and in the case of several exceptional discoveries as those from the mining sector Păru Carpeni, specific conservation measures have been proposed; Orlea area – Ţarina is going to be researched in detailed between 2007-2012;
- Through the preventive archaeological researches from 2001-2006 there have been outlined and

researched 13 archaeological sites, for some of these – after the closure of the exhaustive researches – the decision to implement the archaeological discharge procedure has been made, and for other cases the in situ conservation has been agreed upon – the funerary monument from Tău Găuri, Roman vestiges from the Carpeni Hill, Orlea area is going to be researched in detail between 2007-2012.

Taking in to account the importance of the cultural heritage from Roșia Montană and the applicable legal provisions, SC Roșia Montană Gold Corporation SA has funded between 2001-2006 a budget of more than US\$ 10 million for the research of the heritage. Moreover, considering the results of the researches, the experts opinions and the decisions formulated by relevant authorities, during the next years, the company is about to allocate a budget of US\$25 million for the research, conservation and restoration of the Roșia Montană cultural heritage, provided that the mining project is implemented; as it has been made public in the Environmental Impact Assessment Study in May 2006 (see the Report on Environmental Impact Assessment Study, volume 32, Management Plan for Archaeological Heritage from Roșia Montană area, page 84-85). Therefore, it is taken into account the continuation of the researches in the Orlea area, but especially the creation of a **Modern Mining Museum with geology, archaeology, industrial and ethnographic heritage exhibitions**, as well as setting up tourists' access in the **Cătălina-Monulești** gallery and at the monument from **Tău Găuri** as well as the **conservation and restoration of those 41 historic monument buildings and of the protected area Roșia Montană Historic Centre**.

We underline the fact that besides the liabilities assumed by RMGC, with regard to the protection and conservation of the archaeological vestiges and historic monuments, there is an entire suite of obligations for the local public authorities from Roșia Montană and Alba county, as well as for central authorities, the Romanian State respectively. Management plans for cultural heritage within the framework of the Report on Environmental Impact Assessment Study have been created in order to set the most responsible approach of the project, in such a manner to insure the protection and conservation of the cultural heritage (see the Report on Environmental Impact Assessment study, volume 32, Management Plan for Archaeological Heritage from Roșia Montană area, page 22-24, 49, 55-56, 71-72 and Report on Environmental Impact Assessment study, volume 33, Management Plan for Historic Monuments and Protected Areas from Roșia Montană area, page 28-29, 47-50, 51-53, 65-66, p. 103 – Annex 1).

As far as the detail information is concerned regarding the main archaeological vestiges, as well as a series of considerations related to the protection and the specific anticipated measures within the Management plans, we kindly ask you to read the annex entitled “Information on the Cultural Heritage of Roșia Montană and Related Management Aspects”.
