### Proposal

How will the safe cyanide transport be performed taking into account that during 2006 on Aries River many landslides have occurred and in most of the country major floods have been produced and destroyed public and national roads?

Regarding cyanide transportation, RMGC is committed to respecting the Romanian and EU relevant legislation and also to imposing the observation of such obligations also by its suppliers in order to ensure that all requirements for safe transportation of any hazardous materials are met.

In addition, our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU.

RMGC is also a signatory of the International Cyanide Management Code (ICMI), an internationally recognized practice for cyanide management in the gold mining industry; we will also require our suppliers to sign and abide by ICMI, and Roșia Montană plant operations will be ICMI certified. An ongoing, rigorous and independent audit of the cyanide management system will be followed as well.

Since RMGC will not be certified for cyanide transportation, it will not do so. A company with expertise, that is qualified according to the Romanian relevant legislation on transportation of dangerous goods and traffic on public roads and also under CEFIC and ICMI standards, will be selected and under review by both producer and user.

Cyanide in a solid, briquette form (not as a liquid), will be transported within specially-designed "isotainers" that are resistant to accident or damage and that shall be authorized and regularly inspected according to the applicable legislation on the transportation of dangerous goods and that also shall comply with the applicable norms on public roads traffic. Plans are to maximize the use of rail for transportation, to a rail depot near the project site. A detailed route survey to identify all potential transportation alternatives and hazards, together with needed mitigation measures, will be completed before operations begin. The survey will be conducted as close to the beginning of operations as possible to take advantage of the most updated rail and highway network improvements, as per EU guidelines and always observing the route utilization norms, restrictions and recommendations imposed by the road administrator, traffic police and other public authorities as required by Romanian applicable laws.

When using trucks, our operating procedure will most likely be to group the transport into convoys of 12 trucks once per week to reduce the possible risk of accident. The shipment will occur only after an assessment of current conditions and confirmation of ability to receive shipment at site. RMGC and its suppliers will fully comply with ADR (ADR is the European Agreement concerning the international carriage of dangerous goods by road) and RID (Regulations concerning the international carriage of dangerous goods by rail), the European regulations covering the international carriage of dangerous goods by road or rail.

Transportation routes will be selected, in consultation with administration and road traffic authorities as to avoid hazards, and constant communication during the transit process will help ensure secure delivery to the intended site. Upon delivery, the briquettes will be dissolved directly into a safe container and remain completely contained within the process and plant site. There will be enough storage capacity at the Roșia Montană site to guarantee continuous operation and also allow flexibility of delivery to avoid unusual hazards such as poor road or weather conditions.
Under the CEFIC guidelines and ICMI code, the supplier and transportation company are required to perform surveys of alternative routes. Before transportation begins, they are responsible for ensuring safety on the route and at delivery; weather conditions such as heavy rains would be seriously taken into account when planning routes. Rail rather than highway transportation is preferred for this and other reasons.

EU regulations covering the shipment of hazardous materials are specific and well-tested. These include some of the following requirements:

- Shipment must stop during severe weather conditions and not re-start until conditions are confirmed as good.
- Road and rail transport are covered under the EU ADR and RID regulations.
- EU certification of transportation company drivers
- Drivers must have an ADR license, class 6
- Drivers must have a current “sodium cyanide training certificate”
- All suppliers should be affiliated with CEFIC
- Must have valid ADR-Certificate for sodium cyanide for the “isotainers”
Why isn’t there a final route of cyanide transport included in the impact assessment study?

A final preferred cyanide transportation route will not be selected until closer to the date that cyanide will be transported, as the regional routes and infrastructure are in a constant state of change and we want the best route. A detailed route survey to identify all potential transportation alternatives and hazards, together with needed mitigation measures, will be completed before operations begin in consultation with administration and road traffic authorities. The survey will be conducted as close to the beginning of operations as possible to take advantage of the most updated rail and highway network improvements, as per EU guidelines, and always observing the route utilization norms, restrictions and recommendations imposed by the road administrator, traffic police and other public authorities as required by Romanian applicable laws.

RMGC is committed to meeting all requirements to ensure safe transportation of any hazardous materials. Our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU. RMGC is also a signatory of the International Cyanide Management Code (ICMI), an internationally recognized practice for cyanide management in the gold mining industry; we will also require our suppliers to sign and abide by ICMI, and Roşia Montană plant operations will be ICMI certified. An ongoing, rigorous and independent audit of the cyanide management system will be followed as well.
**Proposal**

What kind of insurance is provided by the company in case an accident occurs during cyanide transport?

**Solution**

RMGC is committed to respecting the Romanian and EU relevant legislation and also to imposing the observation of such obligations also by its suppliers in order to ensure that all requirements for safe transportation of any hazardous materials are met.

Our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU with the required ADR license (ADR is the European Agreement concerning the international carriage of dangerous goods by road).

RMGC is also a signatory of the International Cyanide Management Code (ICMI), an internationally recognized practice for cyanide management in the gold mining industry; we will also require our suppliers to sign and abide by ICMI and the Roşia Montană plant will be ICMI certified. An ongoing, rigorous and independent audit of the cyanide management system will be followed as well.

The International Cyanide Management Code has these, among other, requirements:

- Protect communities and the environment during cyanide transport;
- Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements;
- Require that cyanide transporters implement appropriate emergency response plans and capabilities, and employ adequate measures for cyanide management.

In addition to ICMI terms, the carriage of dangerous goods is subject to EU Directives on Health, Safety and Transport that are translated into regulations for the Member States. Additionally, the EU Directive 2004/35/CE on environmental liability with regard to the prevention and remediying of environmental damage, establishes the general framework for environmental liability including the transport by road, rail, inland waterways, sea or air of dangerous goods or polluting goods. Therefore, in addition to the legal insurance obligations that shall be undertaken by RMGC’s suppliers of transportation services, when operations shall commence and upon implementation into the Romanian legislation, RMGC will conform to applicable EU regulations and codes regarding insurance, as applicable.
**Domain**

TRANSPORTATION

**MMDD's item no. for the question which includes the observation identified by the RMGC internal code**

154

**MMDD's identification no. for the question which includes the observation identified by the RMGC internal code**

Zlatna, 02.08.2006

**RMGC internal unique code**

MMGA_0327

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**Proposal**

Which access routes are going to be used for supplying Rosia Montana? They are going to use the Alba Iulia – Zlatna railway and the national road that crosses Zlatna?

Which is the impact of all these on Zlatna?

RMGC acknowledges that transportation of people and materials is a challenging task given the condition of Romania’s current transportation infrastructure. As a result, the EIA report shows project supply route options. During operations, our plans are to maximize the use of rail to a depot near the project site whenever possible.

When using trucks, our operating procedure will most likely be to group the transport into convoys of 12 trucks once per week to reduce the possible risk of accident. The shipment will occur only after an assessment of current conditions and confirmation of ability to receive shipment at site. RMGC and its suppliers will fully comply with ADR (European Agreement concerning the international carriage of dangerous goods by road) and RID, (the European regulations covering the international carriage of dangerous goods by road or rail).

Transportation routes will be selected, in consultation with administration and road traffic authorities as to avoid hazards, and constant communication during the transit process will help ensure secure delivery to the intended site. Upon delivery, the briquettes will be dissolved directly into a safe container and remain completely contained within the process and plant site. There will be enough storage capacity at the Roşia Montană site to guarantee continuous operation and also allow flexibility of delivery to avoid unusual hazards such as poor road or weather conditions. The degree of impact on Zlatna will vary based upon this important assessment. In one alternative route, Zlatna could be selected as a railhead for the delivery of cyanide with road transport to the project site.

The EIA notes that RMGC will undertake a survey to provide new information; this survey will include a robust mitigation strategy and allow more detailed provisions for specific cases. The proposed new survey will provide information on conditions at Zlatna and the community will be consulted regarding their concerns. The Transport impact assessment will identify the classes of impact, including increase in heavy traffic volumes, noise and vibration as well as potential for accidents and spill of dangerous substances.

RMGC is committed to respecting the Romanian and EU relevant legislation and also to imposing the observation of such obligations also by its suppliers in order to ensure that all requirements for safe transportation of any hazardous materials are met. Also, our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU. RMGC is also a signatory of the International Cyanide Management Code (ICMI), an internationally recognized practice for cyanide management in the gold mining industry; we will require our suppliers to sign and abide by ICMI and the Roşia Montană plant will be ICMI certified. An ongoing, rigorous and independent audit of the cyanide management system will be followed as well.
<table>
<thead>
<tr>
<th>Domain</th>
<th>TRANSPORTATION</th>
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<tr>
<td>Proposal</td>
<td>In terms of infrastructure, the questioner considers that the roads will be deteriorated by the heavy vehicles that will be used for the transport to the mine site. These transports will affect both the main roads and the side roads that will be used at full capacity.</td>
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<tr>
<td>Solution</td>
<td>We understand that the proposed project may impact area roads and have a commitment to maintenance and construction to ensure no infrastructure degradation.</td>
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<tr>
<td>Through the payment of transport license, road and fuel taxes, the contribution of funds through signed protocols with Abrud and other cities, RMGC will pay or help pay for the construction and maintenance of roads and infrastructure impacted by the proposed project.</td>
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Two trucks will be transporting cyanide on Romanian roads every day. Given the frequency of transport, despite all the protection measures that may be taken, the risk of an accident is significantly high. Based on which right does RMGC pose such risk to the Romanian population?

Transportation routes will be selected, in consultation with administration and road traffic authorities as to avoid hazards, and constant communication during the transit process will help ensure secure delivery to the intended site. Upon delivery, the briquettes will be dissolved directly into a safe container and remain completely contained within the process and plant site. There will be enough storage capacity at the Roşia Montană site to guarantee continuous operation and also allow flexibility of delivery to avoid unusual hazards such as poor road or weather conditions.

RMGC is committed to respecting the Romanian and EU relevant legislation and also to imposing the observation of such obligations also by its suppliers in order to ensure that all requirements for safe transportation of any hazardous materials are met. Moreover, our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU. RMGC is also a signatory of the International Cyanide Management Code (ICMI), an internationally recognized practice for cyanide management in the gold mining industry; we will also require our suppliers to sign and abide by ICMI, and Roşia Montană plant operations will be ICMI certified. An ongoing, rigorous and independent audit of the cyanide management system will be followed as well.

Since RMGC will not be certified for cyanide transportation, it will not do so. A company with expertise, that is qualified under CEFIC, EU guidelines and ICMI standards, will be selected and under review by both producer and user. Cyanide in a solid, briquette form (not as a liquid), will be transported within specially-designed “isotainers” that are resistant to accident or damage and that shall be authorized and regularly inspected according to the applicable legislation on the transportation of dangerous goods and that also shall comply with the applicable norms on public roads traffic.

A detailed route survey to identify all potential transportation alternatives and hazards, together with needed mitigation measures, will be completed before operations begin. The survey will be conducted as close to the beginning of operations as possible to take advantage of the most updated rail and highway network improvements, as per EU guidelines, and always observing the route utilization norms, restrictions and recommendations imposed by the road administrator, traffic police and other public authorities as required by Romanian applicable laws. RMGC will adhere to the very strict, already-established rules set by the EU for the shipment of hazardous goods. As with many industrial activities, adherence to proven government safety regulations will reduce the risk to communities and workers.
Half a million tons of cyanide will be transported, during all this period, on the Romanian roads and will be buried in the Apuseni Mountains. RMGC does not undertake any risks related to the transport of cyanide on the Romanian roads, in relation to this project.

Cyanide will be used in the Project for the carbon-in-leach (CIL) process (between 11 and 13 thousand tone/year – less than 200 thousand tons over the mine life) in the extraction of gold. Most cyanide will be recovered in the plant as illustrated in Exhibit 4.1.15 and discussed in Section 2.3.3, Chapter 4.1 Water, of the EIA report, however, a residual will remain in the tailings. The detoxified tailings comprise the only process wastewater source for the Project. Residual cyanide concentrations in the treated tailings slurry will be subject to compliance with the EU Mine Waste Directive which stipulates a maximum of 10 ppm WAD CN. Cyanide will be present as a potential pollutant at the site in (artificial) surface water only during the operational phase and the first year or two following closure. Modeling of the predicted concentrations in the TMF has shown that treated process plant tailings flow is expected to contain 2 to 7 mg/L total cyanide. Further degradation will reduce the concentrations to below applicable standards in surface water (0.1 mg/l) within 1-3 years of closure. A secondary effect of this treatment is also the reduction of many of the metals which may potentially occur in the process water stream. An assessment of the likely chemical makeup of the tailings leachate, based on testing, is summarized in Table 4.1-18 (section 4.3.), Chapter 4.1 Water, of the EIA report. The below drawing is presenting the complexity of CN degradation processes which are occurring in TMF.

After discharge, the water is circulated back into the process; the decant water in the TMF although the storage, is subject to natural degradation of the cyanide, there are processes taking place, such as hydrolyses, volatilization, photo-oxidation, bio-oxidation, mixing / separation, adsorption on precipitate compounds, dilution due to rainfalls etc.

According to the data sourced during the operation of various mines, different cyanide reduction efficiencies are outlined variable (from 23-38% to 57-76% for total cyanides and from 21-42% to 71-80% for WAD), depending on the season (temperature).
An average of approx. 50% decrease of CN\textsubscript{t} concentration was considered for the TMF during operations’ phase. The Model compiled for the degradation process shows that the cyanide concentration is possible to decrease to even 0.1 mg CN\textsubscript{t}/L during the first three years of closure.

The main part (90%) of the destructed cyanide (average of 50%) is broken down by volatilization / hydrolosis, as cyanic acid. The mathematical modeling of the cyanic acid concentration in the TMF showed a maximum hourly concentration of 382 μg/m\textsuperscript{3} in comparison to 5,000 μg/m\textsuperscript{3}, the concentration allowed by the Order no. 462 of the Ministry of Environment and Waters’ Management.

Cyanide will not be buried in the Apuseni Mountains. The cyanide used in operations will be carefully controlled according to EU guidelines and International Cyanide management Code (ICMC- www.cyanidecode.org ) provisions and safely contained on the Processing Plant site to prevent any potential leakage. The cyanide undergoes detoxification through the INCO (DETOX) procedure, per Best Available Techniques (BAT) as defined by BREF\textsuperscript{[1]} document and the process tailings are released in the tailings management facility under the terms of the EU Mine Waste Directive. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions (biodegradation supported by UV radiations), i.e. it is short-lived in the environment.

RGMC is committed to respecting the Romanian and EU relevant legislation and also to imposing the observation of such obligations also by its suppliers in order to ensure that all requirements for safe transportation of any hazardous materials are met. Our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU.

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Plans are to maximize the use of rail for transportation, to a rail depot near the project site. A detailed route survey to identify all potential transportation alternatives and hazards, together with needed mitigation measures, will be completed before operations begin. The survey will be conducted as close to the beginning of operations as possible to take advantage of the most updated rail and highway network improvements, as per EU guidelines, and always observing the route utilization norms, restrictions and recommendations imposed by the road administrator, traffic police and other public authorities as required by Romanian applicable laws.

Then using trucks, our operating procedure will most likely be to group the transport into convoys of 12 trucks once per week to reduce the possible risk of accident. The shipment will occur only after an assessment of current conditions and confirmation of ability to receive shipment at site. RMGC and its suppliers will fully comply with ADR (the European Agreement concerning the international carriage of dangerous goods by road) and RID (Regulations concerning the international carriage of dangerous goods by rail).

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References:

**Proposal**

RMGC does not assume the risks of the cyanide transit through Romania.

RMGC is committed to respecting the Romanian and EU relevant legislation and also to imposing the observation of such obligations also by its suppliers in order to ensure that all requirements for safe transportation of any hazardous materials are met. Additionally, our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU. RMGC is also a signatory of the International Cyanide Management Code (ICMI), an internationally recognized practice for cyanide management in the gold mining industry; we will require our suppliers to sign and abide by ICMI and the Roşia Montană plant will be ICMI certified. An ongoing, rigorous and independent audit of the cyanide management system will be followed as well.

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In addition, the EIA Report documents RMGC’s Emergency Preparation and Spill Contingency Management Plan (Plan I). Its scope includes transit corridors for shipment of materials, including cyanide. This plan sets out basic procedures for the company emergency response team to deal with such accidents and ensure rapid reaction to any need for specialist clean-up. Further, the Cyanide Management Plan (included in the EIA report as Plan G) sets out specific responsibilities for care of cyanide during transport, including RMGC’s intention to prepare written agreements with the cyanide manufacturer and transporter over responsibility for health, safety and environmental issues.
Domain: TRANSPORTATION

**Proposal**

Unsafe cyanide transport

RGMC is committed to respecting the Romanian and EU relevant legislation and also to imposing the observation of such obligations also by its suppliers in order to ensure that all requirements for safe transportation of any hazardous materials are met. Additionally, our company and our suppliers will adhere to the guidelines of the Cyanides Sector Group of the EU (CEFIC) for storage, handling and distribution of alkali cyanides. CEFIC sets the standards and requires compliance with EU Directives regulating the transport of thousands of different hazardous substances shipped daily throughout the EU. RMGC is also a signatory of the International Cyanide Management Code (ICMI), an internationally recognized practice for cyanide management in the gold mining industry which covers the supplier, the transporting company and user and Roşia Montană plant operations will be ICMI certified. An ongoing, rigorous and independent audit of the cyanide management system will be followed as well. Since RMGC will not be certified for cyanide transportation, it will not do so. A company with expertise, that is qualified according to the Romanian relevant legislation on transportation of dangerous goods and traffic on public roads and also under CEFIC and ICMI standards, will be selected and under review by both producer and user. Cyanide in a solid, briquette form (not as a liquid), will be transported within specially-designed “isotainers” that are resistant to accident or damage and that shall be authorized and regularly inspected according to the applicable legislation on the transportation of dangerous goods and that also shall comply with the applicable norms on public roads traffic. Plans are to maximize the use of rail for transportation, to a rail depot near the project site. A detailed route survey to identify all potential transportation alternatives and hazards, together with needed mitigation measures, will be completed before operations begin. The survey will be conducted as close to the beginning of operations as possible to take advantage of the most updated rail and highway network improvements and always observing the route utilization norms, restrictions and recommendations imposed by the road administrator, traffic police and other public authorities as required by Romanian applicable laws.

**Solution**

When using trucks, our operating procedure will most likely be to group the transport into convoys of 12 trucks once per week to reduce the possible risk of accident. The shipment will occur only after an assessment of current conditions and confirmation of ability to receive shipment at site. RMGC and its suppliers will fully comply with ADR and RID, the European regulations covering the international carriage of dangerous goods by road or rail.

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