

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	76
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Campeni, 26.07.2006
RMGC internal unique code	MMGA_0190
Proposal	<p>Is the tailings management facility's dam built from rockfills or from rock resulting from striping works, because during the public debates it was stated that it will be built from rockfills and within the EIA it is stated that it will be built from rocks resulted from open pits' stripping works?</p>
Solution	<p>The "Tailings Facility Management Plan," Plan F of the EIA, describes that the dam will be built with rockfill materials for the shell of the dam, crushed rock for the drains and filter zones, and low permeability soil for the core of the dam. The rockfill for the dam shell zones will be obtained from either the onsite rock quarry or from waste rock (non-ore materials) from the mining operations.</p> <p>Specifically, for the starter dam the rockfill for the shell zone will be obtained from the Şulei quarry. Subsequent raises will be constructed with rockfill from the mining operation. The crushed rock for the drain and filter zones will be obtained from the La Piriul Porcului quarry. The low permeability soil core for the dam will be obtained from the thick colluvial deposits within the tailings basin slopes.</p> <p>The use of "waste" rock to construct the dam raises serves two purposes. First, it allows storage of waste rock, minimizing additional waste rock stockpiles. Second, it provides a structural material for constructing the TMF dam without expanding existing, or creating new, borrow areas.</p> <p>Some of the materials to be used for raising the tailings dam are potentially Acid Rock Drainage generating, and therefore, seepage through and under the tailings dam may be acidic and contain metal ions. Therefore, a Secondary Containment System is provided downstream of the TMF dam to collect any possible ARD runoff , and to collect seepage that occurs through and under the TMF dam. The pervious dam concept has been selected for a number of reasons, primarily because with these proper controls, it reduces the potential for seepage from the tailings basin to the adjacent valleys and provides a higher margin of long-term safety.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	78
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Campeni, 26.07.2006
RMGC internal unique code	MMGA_0195
Proposal	<p>The Corna Dam that will reach a 180m height will impact the underground water and Aries River, and the river's water will no longer be drinkable. Thus, the life of Apuseni Mountains will be uncertain.</p> <p>The Corna Dam [also called the "Tailings Management Facility" (TMF) dam] will not negatively impact the area's water table. Because of RMGC's commitment to invest in environmental clean-up and restoration, the Roşia Montană Project (RMP) will actually improve water quality of the Arieş River.</p> <p>All activities involving the Arieş River will be closely monitored by the Romanian government to ensure that RMP complies with NTPA 001/2002 (as modified), the very strict requirements for water quality which are derived from the EU standards. We understand your concern that the River or groundwater may be contaminated due to TMF seepage.</p> <p>Further explanation and details follow:</p> <p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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 (1x10-6 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.</p> <p>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:</p> <ul style="list-style-type: none"> • A low permeability (1x10-6 cm/sec) cut off wall within the foundation of the starter dam to control seepage; • A low permeability (1x10-6 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
Solution	

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.

Most of the water used by the Project will be supplied from recycled water from the TMF. The water in the Arieş River will be used as the potable water supply for the Project and as industrial water supply, using the fresh water supply system. For details on the water supply and use, see Volume 11 of EIA, Chapter 4.1 Water.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	82
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Campeni, 26.07.2006
RMGC internal unique code	MMGA_0205
Proposal	<p>The report states that the dam will be built on low-permeability bedrocks with no lining, and no geomembranes and that the water tends to follow the path that opposes the lowest resistance and that is why there is no need for lining because all the water will flow through the main dam. However, this is not true for all cases: in the case of springs – and there are many springs in Corna valley – the water from the underground waters climbs through the fractures of these low-permeability rocks and exits at surface. Therefore these rocks allow water to pass through them and the tailings contain compounds that enter these fractures and create a large pressure. The tailings from TMF produce acid waters that on their turn contain - in addition to cyanides - sulphur, ammonia and heavy metals. These elements under the pressure exerted by tailings accumulating on top will enter these fractures and consequently will enter the spring waters and in underground waters.</p>
Solution	<p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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.

The possibility for lateral seepage flowing around the secondary containment facilities was investigated as part of the design studies. The hydrogeologic studies in the Corna valley indicated that groundwater was flowing toward the valley bottom and that the final elevation of the tailings pond surface was less than the elevation of the existing groundwater levels. Therefore, it is considered that there will not be gradient for groundwater to flow to the adjacent valleys. The groundwater elevations in the sides of the TMF basin have been monitored over a five year period and only indicate small seasonal variations.

The tailings facility water will not be acidic when it is deposited in the TMF basin. In fact it will be mildly alkaline. The tailings material does have the potential to generate acidic conditions. However, due to the flooding and rapid deposition of the tailings pond, significant oxidation which may facilitate ARD generation is not likely to occur.

Some cracks (fissures) occurring in the bedrock are known to exist and have been described in the Hydrogeology Baseline Report (Volume 2). However, the fissures are largely encountered in the upper bedrock of the Corna Valley and are superficial, as described in the Hydrogeology Baseline Report. This surface fracturing, as well as the colluvium and alluvium surficial layers are the main groundwater resource and provide a limited water supply accessed via springs and shallow wells. The deeper bedrock is relatively impermeable. As described in the Hydrogeology Baseline Report, section 4.4.1, focus has been on a likely bedrock faults occurring at high depth in the Corna Valley, that was considered a possible channel for drainage from the tailings pond. However, the geological mapping and hydraulic testing in this area showed that the hydraulic conductivity is low (10^{-6} cm/sec) and characteristic for the local bedrock. Therefore, there the risk for water contamination is low.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	105
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Alba Iulia, 31.07.2006
RMGC internal unique code	MMGA_0244
Proposal	<p>The dam of the TMF will be built from rockfill and will be elevated as the operation advances. The impermeable core reaches 75m. The rest of the dam is not lined. Thus, it will be built by dumped tailings (with an excavator) on one side, and on the other by tailings blended with water in order to hold the dam in one place. That is why the dam will fail and will be washed out by water as it was the case for other dams built from this material.</p>
Solution	<p>It is accurate that the main dam at the Tailings Management Facility (TMF) will be built in stages using, in all cases, compacted rockfill for the shell and select drain and filter materials that meet the specifications required by the engineering design. 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 experts. Prior to operation, the dam must be certified for operations by the National Commission for Dams Safety (CONSIB). RMGC has utilized the world's foremost experts in these areas to ensure the safety of the project's workers and the surrounding communities.</p> <p>Water retention embankment dams have a central section or core or an upstream face liner, which is frequently made from a low permeability material to control seepage. This is the case for the starter dam of the TMF, which needs to store water for RMP start-up. However, after the starter dam is filled the reclaim pond will not be up against the face of the dam as it will be contained by the tailing beach. Therefore, the dam raises above the starter dam do not include a low permeability core. However, they will contain engineered drainage, filter and transition zones to control seepage. Any seepage water that passes through the centerline of the dam will be captured in the Secondary Containment Dam (SCD). Unlike the main tailings embankment, the SCD will have a low permeability core for the whole height of the dam. In addition, the upstream and downstream shell of the SCD will be constructed of non-acid generating material. Water stored behind the SCD will be pumped back into the tailings basin to be recycled for the processing plan. RMGC has located sources for rock to meet these strict requirements. Additional rock or "rockfill" will come either from rock mined on-site that is not processed for gold or from other on-site sources.</p> <p>As explained in The Tailings Management Facility Plan, Plan F, of the EIA, one of the significant features of the Corna dam is that it is designed as a pervious dam, above the elevation of the starter dam. This design is possible and preferable because there will be a secondary containment dam during operations and after mine closure to collect the seepage that occurs through the pervious components of the Corna dam. This design is preferred for a number of reasons, including that it allows drawdown of the saturation line in the higher part of the valley near the dam face. This will reducing the potential for seepage from the tailings basin to the adjacent valleys.</p> <p>It is important to note that the proposed dam is of wholly different engineering design and construction method than the Baia Mare dam. Specifically, the RMGC facility has been designed for two Probable Maximum Precipitation (PMP) events and the associated Probable Maximum Floods (PMF), which is more rain than has ever been recorded in this area. 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.</p> <p>For more details regarding the TMF design criteria, dam raises and construction materials specifications, please see Plan F, "The Tailings Facility Management Plan" of the EIA.</p>

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MMDD's item no. for the question which includes the observation identified by the RMGC internal code	105
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Alba Iulia, 31.07.2006
RMGC internal unique code	MMGA_0245
Proposal	The dam may also fail due to the fact that rains may exceed its design capacity. Only the 1000 year potential precipitations have been taken into account, but unfortunately the rains that occur lately are those estimated to occur every 2000 or 5000 years.
Solution	<p>The risk of a dam break is very low because the facility has been designed to contain rainfall events with a reoccurrence interval that is less than 1 in 10,000 years. The specific design criteria are presented below.</p> <p>The proposed dam at the Tailings Management Facility (TMF) was designed to store the runoff from a probable maximum precipitation (PMP). This is generally referred to as the probable maximum flood (PMF). Specifically, the design criterion for storage at any point in the operating life will be for storage of two PMP's events. The reoccurrence interval for one PMP event is more than 1 in 10,000 year. 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 this unlikely event. Discharge through the spillway will avoid overtopping which could cause a dam breach.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	125
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Alba Iulia, 31.07.2006
RMGC internal unique code	MMGA_0288

Proposal	Why isn't the tailings facility lining performed? It is too expensive, or what?
Solution	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	237
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Cluj Napoca, 07.08.2006
RMGC internal unique code	MMGA_0485
Proposal	<p>Corna tailings management facility is designed for 250 million tons. Rosia Montana mining operation needs 215 million tons, therefore a difference of 35 million tons. On the cedar.com web site, RMGC published a financial report where it is written the fact that the viable alternative from an economic point of view for the lease from Bucium is to use the same processing plant and the same tailings management facility from Corna Valley. Bucium lease is from 8 to 10 times bigger than the one at Rosia Montana. The most frequent dam failures occur when mining operations extend. In this case we are dealing with a situation where this thing is possible and likely to happen. Taking into account the fact that the dam is going to have only an insignificant available storage capacity for Bucium lease, why does RMGC try to convince the public that nothing will happen, while even before the beginning of the mining operation there, area has plenty of risks? In the case of a dam failure, the runoff tailings could kill the entire population of Abrud and it would irremediably pollute the entire region.</p>
	<p>It is correct that the Tailings Management Facility (TMF), is designed to store a quantity of 250 million tons of tailings. The total ore quantity which will be processed during the lifetime of the mine is of 215 million tons. That yields an excess capacity of approximately 35 million tons in the main pond. The excess capacity will allow for variations in the actual insitu density of the tailing material and will allow some additional processing of ores if they are located during the duration of the mine life.</p> <p>RMGC currently holds an exploration license for Bucium, for the Rodu and Frasin deposits which are adjacent to and contiguous with Roşia Montană. The deposits contain mineral resources but no reserves and are currently the subject of a feasibility study. One alternative being investigated is whether it would be possible to process at Roşia Montană and deposit tailings in the Roşia Montană tailings management facility. However, a complete engineering evaluation would be required to determine if the site could accommodate some portion of the tailings generated from these deposits.</p> <p>At this stage, the study has not been completed. If, at some future point, an economically, socially, culturally and environmentally viable project is proven, then it would require a fully compliant Environmental Impact Analysis (EIA) and public consultation process such as is underway currently for the Roşia Montană Project.</p>
Solution	<p>The design storage for the TMF includes capacity for the 250 million tons of tailings as well as storage 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.</p> <p>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.</p> <p>Regarding your concern about 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. It is important to note that the proposed dam is of wholly different engineering and construction than the Baia Mare dam.</p>

Section 7 of the EIA report includes an assessment and analysis of risks and includes various dam break scenarios. The dam break modeling showed that, in the extraordinarily unlikely event that the dams, the spillways and catch basin all fill, then any tailings runout would be extremely diluted and would not extend beyond the confluence of the Corna valley stream and the Abrud River. Thus, even in this highly improbable, worst-case scenario, the town of Abrud would remain safe and unharmed.

Given the dam break scenarios provided by the EIA team, the run-out distances of tailings material is conservatively estimated to be between 0.6 to 1.6 kilometers. This model indicates that that tailings material will not reach the Abrud River.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	255
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Cluj Napoca, 07.08.2006
RMGC internal unique code	MMGA_0532

Proposal	<p>The lining of the tailings management facility breaks the requirements of the Governmental Decision no. 351/2005. What will the company do in this respect?</p>
Solution	<p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	261
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Cluj Napoca, 07.08.2006
RMGC internal unique code	MMGA_0543
Proposal	<p>The questioner makes a comment regarding the TMF (Tailings Management Facility): -The TMF safety area and the limits beyond which no construction is allowed should be mentioned in the EIA;</p> <p>-this area must be established by the engineer who designs the TMF;</p> <p>-this TMF is different from any other TMF in Romania and only one person can be responsible for its safety;</p> <p>-the issue of the TMF should be more carefully addressed in the EIA.</p>
Solution	<p>The protection area for the proposed tailings disposal, which includes the entire Tailings Management Facility (TMF), is established by the town planning documentation. The outside perimeter of this area defines the perimeter where only industrial activities are allowed. The outside perimeter of the industrial area is represented in the sections of the EIA Report regarding the PUZ industrial perimeter limits. This area was established based on specific studies and includes the buffer area necessary to eliminate conflicts between industrial and residential activities</p> <p>It is accurate that the TMF will be different from any in Romania, as it will be the first designed and built according to the provisions of the Directive 2006/21/EEC and to the provisions of BAT (Best Available Techniques). The TMF will also be the first facility designed to store the runoff from two Probable Maximum Precipitation (PMP) events. This is generally referred to as the Probable Maximum Flood (PMF). The design criterion for TMF includes storage for two PMF flood events, which is more rain than has ever been recorded in this area. 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 will be constructed for every dam raise and will allow controlled discharge of water which will avoid overtopping of the dam which could cause in a dam breach. The TMF design therefore very significantly exceeds required standards for safety.</p> <p>The EIA describes how the dam will be built with rock fill materials obtained from selected quarries or from waste rock (non-mineralized materials) from the mining operation. The entire TMF facility will be designed by MWH, one of the world's leading dam designers and reviewed and approved by Romanian certified dam experts. Prior to operation, the dam must be certified for operations by the National Commission for Dams Safety (CONSIB). RMGC has utilized the world's foremost experts in these areas to ensure the safety of the project's workers and the surrounding communities. Currently the design presented in the project EIA and received a Dam Safety permit from the National Committee for the Safety of Large Dams.</p> <p>The TMF and the Roşia Montană Project will be operated and maintained by the Roşia Montană Gold Company (RMGC).</p> <p>Additional information and technical data may be found in the EIA, Plan F, and "The Tailings Facility Management Plan."</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	283
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Cluj Napoca, 07.08.2006
RMGC internal unique code	MMGA_0609
Proposal	<p>The questioner desires further information on the TMF, in particular on the lateral seepage that will not get into the secondary containment dam. What happens with this seepage? Where does it get as not all seepage is caught in the containment dam?</p>
Solution	<p>The possibility for lateral ex-filtration flowing around the secondary containment facilities was investigated as part of the design studies. The hydrogeologic studies in the Corna valley indicated that groundwater was flowing toward the valley bottom and that the final elevation of the tailings pond surface was less than the elevation of the existing groundwater levels. Therefore, it is considered that there will not be a gradient for groundwater to flow to the adjacent valleys. The groundwater elevations in the sides of the TMF basin have been monitored over a five year period and only indicate small seasonal variations.</p> <p>The subsurface investigations within the Corna valley indicate that both the superficial deposits (which consist of Colluvium) and the base rock (which consists of Cretaceous sediments) are low permeability materials. Therefore, the infiltration from the tailings basin to the groundwater will be limited. In addition, the design includes a recompacted surface layer of Colluvial material or other low permeability material over the entire basin of the TMF.</p> <p>In addition to the low permeability characteristic of the native materials and the engineered liner materials, the design includes a secondary containment system to capture and collect and seepage water that does extend beyond the centerline of the dam. The secondary containment dam (SCD) and sump will be operated to result in a depressed groundwater system at the toe of the TMF dam. The depressed groundwater levels will result in groundwater from the abutments and below the dam downstream slope to flow to the reclaim pond. At this point the water will be pumped back to the reclaim pond for re-use in the plant operations.</p> <p>To confirm that the secondary containment system is operating properly, a series of monitoring wells will be designed downstream of the secondary containment dam. Water samples from these wells will be monitored on a regular basis to identify and impacts to groundwater. If impacts are observed the wells will be converted to groundwater water extraction well and the groundwater will be pumped in to the secondary containment pond where it will be pumped to the reclaim pond for recycle in the plant operations.</p> <p>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.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	313
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Turda, 09.08.2006
RMGC internal unique code	MMGA_0651
Proposal	<p>Contrary to the stipulations of the Governmental Ordinance no. 351/2005, the TMF is unlined and cyanide can seep into the ground waters thus affecting both plant and animals. The TMF is located upstream from the town of Abrud, and it would generate a real catastrophe is case an accident occurs.</p>
Solution	<p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

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.

Cyanide in Waters

Cyanide is used in hundreds of gold mines and many industries around the world. At Roşia Montană, the TMF will be constructed to the highest international standards. It will be an environmentally safe construction for permanent deposition of detoxified tailings resulting from ore processing. Sophisticated equipment will be used for geotechnical and water level monitoring. Because detoxification will take place before the tailings are deposited to the TMF, they will contain very low concentrations of cyanide (5-7ppm) which is below the regulatory limit of 10ppm recently adopted in the EU Mine Waste Directive.

The cyanide used in operations will be carefully handled according to EU guidelines and safely contained. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the Tailings Management Facility will degrade rapidly. This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques by the EU.

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	367
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Bucuresti, 21.08.2006
RMGC internal unique code	MMGA_0741
Proposal	In the pre-feasibility study, the company stated that the tailings management facility located on the Corna Valley will have an area of 800 hectares. In the EIA, the amount of ore remained unchanged, while the area covered by the tailings management facility was reduced. Where will the remaining amount of ore be taken to, since the total amount remained unchanged?
Solution	The entire Tailings Management Facility (TMF) has a total area of 363 ha including the dam, the pond, the tailings accumulation behind the Secondary Containment Dam (SCD), the secondary retention pond and the lagoons for treating possible seepage water, downstream from the dams. This area is presented in the town planning documentation (PUZ Industrial Area and Town Planning Certificate no. 78/26.04.2006), The pre-feasibility studies dealt only with quantities, not with area requirements. In fact, due to the results of public consultations, the quantity of ore that will be mined at Roşia Montană has decreased. In the 2006 Feasibility Study (a designing stage more advanced than the pre-feasibility study) prepared by S.C. Ipromin S.A. – the general designer of the Roşia Montană Project –, the pond is designed to stock a quantity of 250 million tones of tailings. The total ore quantity which will be processed during the lifetime of the mine is of 215 million tons. That yields an excess capacity of approximately 35 million tons in the main pond. This additional capacity can accommodate the possible variations in density of tailings material in the basin or could accommodate some additional reserves with in the current pit limits if they are identified during the operating life of the mine.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	379
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Bucuresti, 21.08.2006
RMGC internal unique code	MMGA_0782
Proposal	<p>According to the report, the alluvium deposits from the Corna bed are approximately 12 m thick and no colluvium deposits are present. Also, the bedrock existing along the Corna Valley, on the site of the tailings management facility, is described as alternating shale with uniform and non-uniform stratification, foliated and broken shale, with sandstone, breccias and sandy clay bands. Under these circumstances, we challenge the conclusion according to which the bedrock of the tailings management facility, the secondary containment dam and the tailings pond has very low permeability in its natural state, which limits the seepage of underground water to the thin layer identified near the surface. Also, we consider that the measures designed for this purpose are not valid.</p>
Solution	<p>It is not correct to say that there are no colluvium deposits in the Corna Valley. The stratigraphic description of Corna Valley omits the description of the most important stratigraphic unit in the area, which is the colluviums deposits, which have a low capacity of storing the water and have an average hydraulic conductivity of 1×10^{-6} cm/s. The specific details for the characterization for the Corna valley as reported in the EIA Report (Hydrogeologic Baseline Report) are presented below:</p> <p>The undisturbed surficial geology in the Project area consists predominately of alluvium, colluvium, and rock outcrop. The unconsolidated deposits may be up to 12 meters thick along the valley bottoms and 3 to 10 meters thick on the valley slopes. These unconsolidated materials within the Project area consist dominantly of Quaternary alluvial deposits along the valley floors and colluvial soils along the valley slopes. The alluvial deposits along the valley bottoms contain a variety of sediment types ranging from silty clay to limited intervals of clean sand, gravel and cobbles in a fine-grained matrix mostly along the stream channels.</p> <p>The material generally classified as colluvium is a mixture of true colluvium (a mass of soil and rock fragments derived from mass wasting and down-slope movement) and deep soil residuum derived from in-place weathering of the bedrock resulting in soil or unlithified silty clay. The colluvial and residual soils on the valley slopes are up to 10 meters thick. The predominant soil types in these deposits are fine grained clayey and cohesive in nature. The colluvial deposits dominate the surficial exposure of the Corna Valley. There are also deposits of mine waste rock in the upstream portions of the Corna Valley generated from historic mining activities. The surficial geology in the Roşia Valley is similar to Corna Valley. However, the surficial materials are more disturbed and variable because of the existing mining activities, increased habitation and greater variability in bedrock geology.</p> <p>Rock outcrops, typically consisting of the shale and/or sandstone units, occur in locations along the ridgelines associated with both valleys. In addition, the higher elevations along ridgeline are often capped by volcanic andesite. Outcrops of volcanic rocks are more common in the Roşia Valley.</p> <p>For more information regarding specific characteristics of the projected site geology please see EIA, Section 4.5.</p> <p>Referring to the measures to protect groundwater: 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.</p> <p>The TMF is composed of a series of individual components including:</p>

-
- 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:

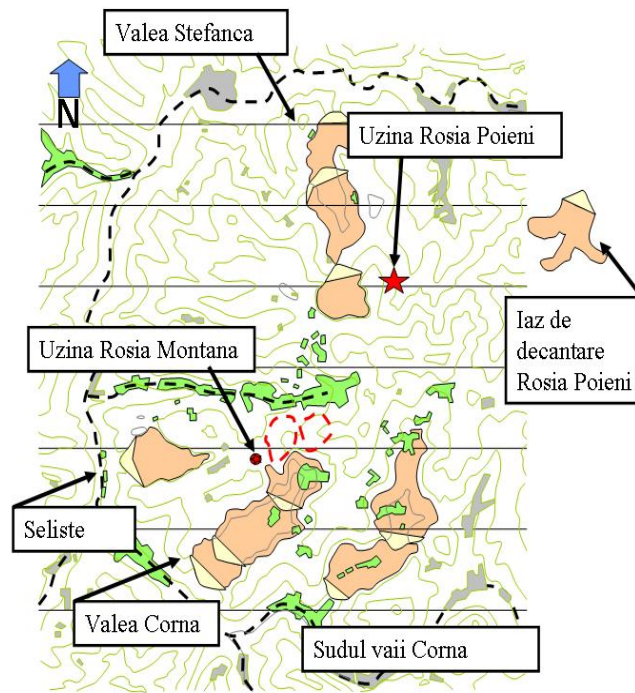
- A low permeability (1×10^{-6} cm/sec) cut off wall within the foundation of the starter dam to control seepage;
- A low permeability (1×10^{-6} cm/sec) core in the starter dam to control seepage;
- A seepage collection dam and pond below the toe of the tailings dam to collect and contain any seepage 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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	379
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Bucuresti, 21.08.2006
RMGC internal unique code	MMGA_0784
Proposal	<p>How long do you estimate that the system consisting of the tailings management facility, dam, secondary tailings pond, secondary dam, ARD water treatment plant will operate?</p>
Solution	<p>The Tailings Management Facility (TMF) will operate concurrently with the Roşia Montană mine; the EIA estimates the mining operations will continue for 16 years. At the end of mine operations, the TMF will transition into closure and post-closure operations which will include various phases over a number of years.</p> <p>Please see below for a detailed discussion of the closure and post-closure activities at the TMF.</p> <p>The TMF seepage quality during and at the end of the operations phase is very conservatively assumed to be the same as the decant pond water. Under the assumption that ongoing oxidation of PAG tailings can be excluded due to the soil cover described in Section 4.5.3 of the EIA, which acts as an effective oxygen barrier, the evolution of seepage water quality with time is mainly determined by the following:</p> <ul style="list-style-type: none"> ▪ the time the pore water needs to travel through the tailings body and be replaced with fresh water; ▪ the accompanying geochemical processes within the tailings body, which lead to lower concentrations in the dam seepage than if hydraulic transport alone is considered. <p>At the end of operations and during the first years of closure, a seepage rate of 77 m³/h is expected based on water balance models. If this rate remains constant, the time needed to flush the tailings pore volume of 63 million m³ once is in the order of 90 years. In order to bring the seepage quality to a level where it can be discharged without treatment, at least 3-4 pore volumes will have to be exchanged, provided there are no additional dissolution or mobilization processes within the tailings body. It follows from this model that the seepage would require continued treatment far into the foreseeable future.</p> <p>With an infiltration-minimizing cover placed on the tailings, the amount of seepage water collected at the Secondary Containment Dam sump decreases, while the characteristic time needed to flush the tailings body increases correspondingly. It is anticipated that with the soil cover described in Section 4.5 of the EIA infiltration will decrease to a range of 10-25% (or 80-200 mm/a) of the annual precipitation, with a corresponding drop of the seepage rate. Thus, the annual load of contaminants released by the TMF facility is smaller, but the time frame over which treatment will be needed to achieve all NTPA 001/2002 (as modified) limits increases inversely proportional to the infiltration rate.</p> <p>This is the overly conservative approach that was undertaken in the EIA, which considers hydraulic transport alone without geochemical processes taking place within the tailings body over time.</p> <p>But this approach grossly over-estimates the time needed for the seepage water to improve in quality and render it amenable to semi-passive treatment in the lagoons provided in the area downstream from the secondary containment dam and Cetate dam and eventually reach an acceptable quality so that it can be discharged into the environment without further treatment. Nevertheless, for the purpose of the EIA the conservative approach is retained, i.e., that further treatment is required.</p> <p>In order to understand better the potential of ARD generation, in 2004 RMGC started a research program of assessing waste rock ARD potential. RMGC will fund research programs for future technological processes for semi-passive/passive treatment systems. During the project's operational phase RMGC will</p>

construct semi-passive lagoons for testing and optimizing the semi-passive treatment process, in order to achieve designed criteria to comply NTPA 001/2002 (as modified) discharge limit for post closure phase.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	383
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Bucuresti, 21.08.2006
RMGC internal unique code	MMGA_0796
Proposal	<p>The questioner makes the following comments: From the very beginning, the company has presented nothing but lies. Ten years ago, it said that it wanted the tailings management facility. Why the tailings management facility?</p>
Solution	<p>The purpose of the Rosia Montana ore processing operations is the recovery of useful minerals, i.e. gold and silver. The operation of the Rosia Montana Project will generate tailings at a nominal rate of 13 million tonnes/year for a period of 16 years. The TMF is designed to store and consolidate the process tailings and separate the process water by settling and recycling of the supernatant water for use in the operations.</p> <p>The TMF will capture and contain all contaminated run-off waters from areas in the Corna Valley basin that are impacted by mine operations. The tailings slurry from the process plant will be treated in a detoxification plant to reduce the Weak Acid Dissociable (WAD) cyanide concentration. WAD cyanide concentrations will be reduced using the SO₂/air process to the maximum permissible level of 10 mg/l that complies with applicable EU standards, before the treated tailings leave the confines of the process plant. Tailings will be delivered at a percent solids of approximately 49 percent.</p> <p>The gold and silver grade of the ore is less than 10 g/t, which means that basically the entire volume of extracted and processed ore can be considered as a form of waste material which needs to be managed in a manner that does not pose any risk to the environment or human health. In accordance with worldwide practices employed for similar conditions and capacities a waste management method consisting in the deposition of process tailings to a Tailings Management Facility was adopted; this method is also recommended by BAT (Best Available Techniques for Management of Tailings and Waste-Rock in Mining Activities – Draft March 2004) and the Best Environmental Practices also mentioned in the European Directive on the Management of Waste from the Extractive Industries.</p> <p>To select the optimal option there were 13 alternative sites[1] reviewed and of these there were 4 sites retained for a multicriterial analysis based on the following criteria:</p> <ul style="list-style-type: none"> • environmental impact; • social impact; • geological and hydrogeological conditions; • proximity to the process plant site; • construction difficulties and storage capacity; • construction and operation costs.



Corna Valley was selected as optimal alternative because the geological, hydrogeological, geotechnical and hydrological features are favourable to constructing the TMF and in addition the valley ensures:

- Storage of process tailings slurry
- Storage of tailings slurry and precipitation water¹
- Design capacity = 250 MT
- Required capacity = 215 MT

References:

[1] A detailed description of all alternatives analysed for the TMF site and of the multicriterial analysis for selecting the optimal site are provided in the EIA report, section 5 Analysis of Alternatives, section 3.3. TMF Location Alternatives

¹ Required capacity includes storage of tailings + 2 consecutive PMP's

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	395
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Bucuresti, 21.08.2006
RMGC internal unique code	MMGA_0839
Proposal	How does the company dare to build a dam approximately 40 times larger than that from Baia Mare, when everybody knows what happened there? Chernobil was also considered to be the best nuclear plant at its time, and still there was an explosion.
Solution	<p>The Roşia Montană project Tailings Management Facility (TMF) is 363 ha. This is not 40 times bigger than the Baia Mare TMF which is 93 ha. The proposed Roşia Montană Tailings Management Facility (TMF) dam is rigorously designed to incorporate all EU, Romanian and international criteria to reduce the risk of failure. These guidelines allow for significant rainfall events and prevent dam failure due to overtopping. The size of the dam is perhaps not as important as the engineering, design, operations and monitoring which will be the responsibility of RMGC. The EIA describes how the dam will be built with rockfill materials, engineered drain and filter materials and a low permeability core to control seepage. The facility is being designed and engineered by MWH, one of the leading dam designers in the world. In addition, the feasibility level designs have been reviewed and approved by certified Romanian dam experts and by the Romanian National Committee for the Safety of Large Dams. Prior to operation, the dam must again be certified for operations by the National Commission for Dams Safety (CONSIB).</p> <p>It is important to note that the proposed dam is of wholly different engineering and construction than the Baia Mare dam. Specifically, the facility has been designed to store for the run off from two Probable Maximum Precipitation (PMP) events. This is generally referred to as the 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.</p> <p>The construction schedule for embankment and basin staging will be completed to ensure that PMP storage requirements are available throughout the project life. In addition, an emergency spillway for the dam will be constructed in the unlikely event that another event occurs after the second PMP event. The spillway will be constructed as part of each dam raise and will be designed to discharge excess water before the end of the summer months 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.</p> <p>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.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	402
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Bucuresti, 21.08.2006
RMGC internal unique code	MMGA_0868
Proposal	<p>The Abrud area will be polluted and impacted, due to the small distance between Abrud and the tailings management facility. Who will be responsible for these 2 problems and how are they going to be solved?</p>
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>In addition, Chapter 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.</p> <p>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.</p> <p>For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	419
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	Bucuresti, 21.08.2006
RMGC internal unique code	MMGA_0895
Proposal	<p>On page 132, paragraph 6.4.3.3, it is stated that, in case of failure of the main dam, having an elevation of 840 meters, the potential effects upon human settlements include: the seepage of an amount of water containing cyanide, which would lead to flooding.</p> <p>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 or harm to the surrounding communities</p> <p>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.</p> <p>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.</p> <p>Cyanide is used in hundreds of gold mines and in many other industries around the world. At Roşia Montană, the Tailings Management Facility (TMF) will be constructed to the highest international standards. It will be an environmentally safe construction for permanent deposition of detoxified tailings resulting from ore processing. Because detoxification will take place before the tailings are deposited to the TMF, they will contain very low concentrations of cyanide (5-7ppm) which is below the regulatory limit of 10ppm recently adopted in the EU Mine Waste Directive and well below international standards of 50 ppm.</p> <p>The cyanide used in operations will be carefully handled according to EU guidelines and safely contained. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the Tailings Management Facility will degrade rapidly to levels well below maximum regulatory levels for discharge to reclaim ponds This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques by the EU.</p> <p>Chapter 7 of the EIA report includes an assessment and analysis of risks and includes various dam break scenarios. The dam break modeling showed that, in the extraordinarily unlikely event that portions of the dam fails then any tailings runout would not extend beyond the confluence of the Corna valley stream and the Abrud River.</p> <p>In the extremely unlikely event an emergency occurs, RMGC would implement all necessary elements of the Emergency Preparation Plan as described in Plan I of the EIA.</p> <p>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. The Chapter concludes that under normal operating</p>
Solution	

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 as Annex 5.1 under the title of the Mureş River Modelling Program together with the full modelling report.

MMDD's item no. for the question
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No. 108928/04.08.2006andNo. 74465/07.08.2006, No. 109005/07.08.2006andNo. 74477/08.08.2006, No. 109008/07.08.2006andNo. 74482/08.08.2006, No. 109014/07.08.2006andNo. 74486/08.08.2006, No. 109015/07.08.2006andNo. 74487/08.08.2006, No. 109016/07.08.2006andNo. 74488/08.08.2006, No. 109029/07.08.2006andNo. 74500/08.08.2006, No. 109030/07.08.2006andNo. 74501/08.08.2006, No. 109031/07.08.2006andNo. 74502/08.08.2006, No. 109032/07.08.2006andNo. 74504/08.08.2006, No. 109049/07.08.2006andNo. 74515/08.08.2006, No. 109048/07.08.2006andNo. 74518/08.08.2006, No. 109116/09.08.2006andNo. 74540/09.08.2006, No. 109112/09.08.2006andNo. 74545/09.08.2006, No. 109106/09.08.2006andNo. 74550/09.08.2006, No. 109217/14.08.2006andNo. 74619/14.08.2006, No. 109218/14.08.2006andNo. 74620/14.08.2006, No. 109222/14.08.2006andNo. 74625/15.08.2006, No. 109249/14.08.2006andNo. 74657/15.08.2006, No. 109254/14.08.2006andNo. 74662/15.08.2006, No. 109256/14.08.2006andNo. 74664/15.08.2006, No. 109260/14.08.2006andNo. 74668/15.08.2006, No. 109268/14.08.2006andNo. 74676/15.08.2006, No. 109271/14.08.2006andNo. 74679/15.08.2006, No. 109709/21.08.2006andNo. 75025/22.08.2006, No. 109710/21.08.2006andNo. 75026/22.08.2006, No. 109711/21.08.2006andNo. 75027/22.08.2006, No. 109712/21.08.2006andNo. 75028/22.08.2006, No. 109713/21.08.2006andNo. 75029/22.08.2006, No. 109714/21.08.2006andNo. 75030/22.08.2006, No. 109715/21.08.2006andNo. 75031/22.08.2006, No. 109716/21.08.2006andNo. 75032/22.08.2006, No. 109717/21.08.2006andNo. 75033/22.08.2006, No.

75253/24.08.2006, No. 110143/23.08.2006andNo. 75254/24.08.2006, No.
110144/23.08.2006andNo. 75255/24.08.2006, No. 110145/23.08.2006andNo.
75256/24.08.2006, No. 110146/23.08.2006andNo. 75257/24.08.2006, No.
110147/23.08.2006andNo. 75258/23.08.2006, No. 110148/23.08.2006andNo.
75259/24.08.2006, No. 110149/23.08.2006andNo. 75260/24.08.2006, No.
110150/23.08.2006andNo. 75261/24.08.2006, No. 110151/23.08.2006andNo.
75262/24.08.2006, No. 110152/23.08.2006andNo. 75263/24.08.2006, No.
110153/23.08.2006andNo. 75264/24.08.2006, No. 110154/23.08.2006andNo.
75265/24.08.2006, No. 110155/23.08.2006andNo. 75266/24.08.2006, No.
110156/23.08.2006andNo. 75267/24.08.2006, No. 110157/23.08.2006andNo.
75268/24.08.2006, No. 110158/23.08.2006andNo. 75269/24.08.2006, No.
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75271/24.08.2006, No. 110161/23.08.2006andNo. 75272/24.08.2006, No.
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75274/24.08.2006, No. 110303/24.08.2006andNo. 75295/28.08.2006, No.
110304/24.08.2006andNo. 75296/28.8.2006, No. 110305/24.08.2006andNo.
75297/28.8.2006, No. 110306/24.08.2006andNo. 75298/28.8.2006, No.
110307/24.08.2006andNo. 75299/28.8.2006, No. 110308/24.08.2006andNo.
75300/28.8.2006, No. 110309/24.08.2006andNo. 75301/28.8.2006, No.
110310/24.08.2006andNo. 75302/28.8.2006, No. 110313/24.08.2006andNo.
75303/28.8.2006, No. 110314/24.08.2006andNo. 75304/28.8.2006, No.
110315/24.08.2006andNo. 75305/28.8.2006, No. 110316/24.08.2006andNo.
75306/28.8.2006, No. 110317/24.08.2006andNo. 75307/28.8.2006, No.
110318/24.08.2006andNo. 7530828.8.2006, No. 110319/24.08.2006andNo.
75309/28.8.2006, No. 110320/24.08.2006, No. 110321/24.08.2006, No.
110322/24.08.2006, No. 110494/25.08.2006, No. 110493/25.08.2006, No.
110492/25.08.2006, No. 110491/25.08.2006, No. 110490/25.08.2006, No.
110489/25.08.2006, No. 110488/25.08.2006, No. 110487/25.08.2006, No.
110486/25.08.2006andNo. 75331/24.08.2006, No. 110485/25.08.2006andNo.
75332/24.08.2006, No. 110484/25.08.2006, No. 110483/25.08.2006, No.
110482/25.08.2006, No. 110481/25.08.2006, No. 110480/25.08.2006, No.
110479/25.08.2006, No. 110478/25.08.2006, No. 110477/25.08.2006, No.
110476/25.08.2006, No. 110475/25.08.2006, No. 110474/25.08.2006, No.
110473/25.08.2006, No. 110472/25.08.2006, No. 110471/25.08.2006, No.
110470/25.08.2006, No. 110469/25.08.2006, No. 110468/25.08.2006, No.
110467/25.08.2006, No. 110466/25.08.2006, No. 110465/25.08.2006, No.
110464/25.08.2006, No. 110463/25.08.2006, No. 110462/25.08.2006, No.
110461/25.08.2006, No. 110460/25.08.2006, No. 110459/25.08.2006, No.
110458/25.08.2006, No. 110457/25.08.2006, No. 110456/25.08.2006, No.
110455/25.08.2006, No. 110454/25.08.2006, No. 110453/25.08.2006, No.
110452/25.08.2006, No. 110451/25.08.2006, No. 110450/25.08.2006, No.
110449/25.08.2006, No. 110448/25.08.2006, No. 110447/25.08.2006, No.
110446/25.08.2006, No. 110445/25.08.2006, No. 110444/25.08.2006, No.
110443/25.08.2006, No. 110442/25.08.2006, No. 110332/25.08.2006, No.
110333/25.08.2006, No. 110334/25.08.2006, No. 110335/25.08.2006, No.
110336/25.08.2006, No. 110437/25.08.2006, No. 110438/25.08.2006, No.
110439/25.08.2006, No. 110440/25.08.2006andNo. 75391/28.08.2006, No.
110441/25.08.2006, No. 110442/25.08.2006, No. 110443/25.08.2006, No.
110444/25.08.2006, No. 110476/25.08.2006, No. 110445/25.08.2006, No.
110447/25.08.2006, No. 110448/25.08.2006, No. 109894/22.08.2006, No.
109895/22.08.2006, No. 109896/22.08.2006, No. 109897/22.08.2006andNo.
75550/29.08.2006, No. 109898/22.08.2006, No. 109914/22.08.2006, No.
109920/22.08.2006, No. 109921/22.08.2006, No. 109922/22.08.2006, No.
109923/22.08.2006, No. 109924/22.08.2006, No. 109925/22.08.2006, No.
10992622.08.2006, No. 75580/29.08.2006, No. 110437/25.08.2006, No.
110435/22.08.2006, No. 110312/24.08.2006, No. 110272/24.08.2006, No.
110271/24.08.2006, No. 110270/24.08.2006, No. 110269/24.08.2006, No.
110268/24.08.2006, No. 110267/24.08.2006, No. 110266/24.08.2006, No.
110265/24.08.2006, No. 110264/24.08.2006, No. 110263/24.08.2006, No.

113825/25.08.2006, No. 113846/25.08.2006, No. 113847/25.08.2006, No. 113848/25.08.2006, No. 113849/25.08.2006, No. 113850/25.08.2006, No. 113851/25.08.2006, No. 113852/25.08.2006, No. 113853/25.08.2006, No. 113854/25.08.2006, No. 113855/25.08.2006, No. 113856/25.08.2006, No. 113857/25.08.2006, No. 113858/25.08.2006, No. 113859/25.08.2006, No. 113860/25.08.2006, No. 113861/25.08.2006, No. 113594/25.08.2006, No. 113595/25.08.2006, No. 113596/25.08.2006, No. 113597/25.08.2006, No. 113598/25.08.2006, No. 113595BIS/25.08.2006, No. 113600/25.08.2006, No. 113601/25.08.2006, No. 113602/25.08.2006, No. 113603/25.08.2006, No. 113604/25.08.2006, No. 113605/25.08.2006, No. 113606/25.08.2006, No. 113607/25.08.2006, No. 113608/25.08.2006, No. 113609/25.08.2006, No. 113610/25.08.2006, No. 113441/25.08.2006, No. 113442/25.08.2006, No. 113443/25.08.2006, No. 113444/25.08.2006, No. 113445/25.08.2006, No. 113446/25.08.2006, No. 113447/25.08.2006, No. 113448/25.08.2006, No. 113449/25.08.2006, No. 113450/25.08.2006, No. 113451/25.08.2006, No. 113452/25.08.2006, No. 113453/25.08.2006, No. 112428/25.08.2006, No. 112427/25.08.2006, No. 112426/25.08.2006, No. 112425/25.08.2006, No. 112424/25.08.2006, No. 112423/25.08.2006, No. 112422/25.08.2006, No. 112421/25.08.2006, No. 112420andNo. 112419/25.08.2006, No. 112420andNo. 112419/25.08.2006, No. 112418/25.08.2006, No. 112417/25.08.2006, No. 112416/25.08.2006, No. 112415/25.08.2006, No. 112414/25.08.2006, No. 112413/25.08.2006, No. 112412/25.08.2006, No. 112411andNo. 112409/25.08.2006, No. 112410/25.08.2006, No. 112411andNo. 112409/25.08.2006, No. 112408/25.08.2006, No. 112407/25.08.2006, No. 112406/25.08.2006, No. 112405/25.08.2006, No. 112404/25.08.2006, No. 12404BIS/25.08.2006, No. 112403/25.08.2006, No. 112402/25.08.2006, No. 112401/25.08.2006, No. 112400/25.08.2006, No. 113862/25.08.2006, No. 113863/25.08.2006, No. 113864/25.08.2006, No. 113865/25.08.2006, No. 113866/25.08.2006, No. 113867/25.08.2006, No. 113868/25.08.2006, No. 113869/25.08.2006, No. 113870/25.08.2006, No. 113871/25.08.2006, No. 113872/25.08.2006, No. 113873/25.08.2006, No. 113874/25.08.2006, No. 113875/25.08.2006, No. 113876/25.08.2006, No. 113877/25.08.2006, No. 113878/25.08.2006, No. 113879/25.08.2006, No. 113880/25.08.2006, No. 113881/25.08.2006, No. 113882/25.08.2006, No. 113883/25.08.2006, No. 113884/25.08.2006, No. 113885/25.08.2006, No. 113886/25.08.2006, No. 113887/25.08.2006, No. 113888/25.08.2006, No. 113889/25.08.2006, No. 113890/25.08.2006, No. 113891/25.08.2006, No. 115103/13.10.2006, No. 116056/11.12.2006, No. 169324/06.11.2006, No. 169323/06.11.2006, No. 169322/06.11.2006, No. 169321/06.11.2006, No. 114373/169078/10.10.2006, No. 114888/05.10.2006, No. 114903/05.10.2006

RMGC internal unique code MMGA_1048

Proposal There is no liner proposed for the tailings pond;
SEE CONTENT CONTESTATION TYPE 1

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.

Solution

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.

111062/25.08.2006, No. 111061/25.08.2006, No. 111052/25.08.2006, No. 111051/25.08.2006, No. 111050/25.08.2006, No. 111049/25.08.2006, No. 111048/25.08.2006, No. 111047/25.08.2006, No. 111045/25.08.2006, No. 111044/25.08.2006, No. 111016/25.08.2006, No. 111014/25.08.2006, No. 111008/25.08.2006, No. 111007/25.08.2006, No. 111006/25.08.2006, No. 110990/25.08.2006, No. 110790/25.08.2006, No. 110712/25.08.2006, No. 110709/25.08.2006, No. 110706/25.08.2006, No. 110703/25.08.2006, No. 110703/25.08.2006, No. 110700/25.08.2006, No. 110699/25.08.2006, No. 113005/25.08.2006, No. 112971/25.08.2006, No. 112972/25.08.2006, No. 112973/25.08.2006, No. 110755/25.08.2006, No. 111376/25.08.2006, No. 111387/25.08.2006, No. 112379/25.08.2006, No. 112378/25.08.2006, No. 112377/25.08.2006, No. 112376/25.08.2006, No. 112324/25.08.2006, No. 114290/25.08.2006, No. 111137/25.08.2006, No. 114718/31.08.2006, No. 114719/31.08.2006, No. 114720/31.08.2006, No. 114733/31.08.2006, No. 112991/25.08.2006

RMGC internal unique code

MMGA_1068

Proposal

The questioner opposes the proposed gold and silver mining project at Rosia Montana and makes the following observations and comments:

The tailings pond is unlined and is a hazard for the town of Abrud, as there is the risk of a failure;

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.

Solution

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 reestablished.

Proximity to Abrud

The EIA describes how the dam will be built with rockfill materials, engineered drain and filter materials and a low permeability core to control seepage. The facility is being designed and engineered by MWH, one of the leading dam designers in the world. In addition, the feasibility level designs have been reviewed and approved by certified Romanian dam experts and by the Romanian National Committee for the Safety of Large Dams. Prior to operation, the dam must again be certified for operations by the National Commission for Dams Safety (CONSIB).

The Tailings Management Facility (TMF) dam is rigorously designed to incorporate all EU, Romanian and international criteria to reduce the risk of failure. These guidelines allow for and significant rainfall events and prevent dam failure due to overtopping. Specifically, the facility has been designed to store for the runoff from two Probable Maximum Precipitation (PMP) events. This is generally referred to as the 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.

Additionally, an emergency spillway for the dam will be constructed in the unlikely event that the annual rainfall exceeds two PMPs. 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.

Section 7 of the EIA report includes an assessment and analysis of risks and includes 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 modeling indicates the extent of tailings runoff for the specific conditions analyzed. Based on the two cases considered the tailings would 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 an Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.

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

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110720/25.08.2006, No. 110905/25.08.2006, No. 110903/25.08.2006, No.
110898/25.08.2006, No. 110897/25.08.2006, No. 112975/25.08.2006, No.
112396/25.08.2006, No. 112384/25.08.2006, No. 112383/25.08.2006, No.
112382/25.08.2006, No. 112381/25.08.2006, No. 112989/25.08.2006, No.
112976/25.08.2006, No. 112983/25.08.2006, No. 112984/25.08.2006, No.
112985/25.08.2006, No. 112986/25.08.2006, No. 112987/25.08.2006, No.
112887/25.08.2006, No. 112890/25.08.2006, No. 112894/25.08.2006, No.
112904/25.08.2006, No. 111776/25.08.2006, No. 111762/25.08.2006, No.
111763/25.08.2006, No. 11087/25.08.2006, No. 112881/25.08.2006, No.
112876/25.08.2006, 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, No. 112990/25.08.2006, No. 112949/25.08.2006, No.
112892/25.08.2006, No. 112158/25.08.2006, No. 112161/25.08.2006, No.
112160/25.08.2006, No. 112159/25.08.2006, No. 112955/25.08.2006, No.
111319/25.08.2006, No. 111318/25.08.2006, No. 111315/25.08.2006, No.
111314/25.08.2006, No. 111313/25.08.2006, No. 111312/25.08.2006, No.
111311/25.08.2006, No. 111310/25.08.2006, No. 112967/25.08.2006, No.
112968/25.08.2006, No. 112969/25.08.2006, No. 113003/25.08.2006, No.
111371/25.08.2006, No. 111120/25.08.2006, No. 111096/25.08.2006, No.
111091/25.08.2006, No. 111130/25.08.2006, No. 111092/25.08.2006, No.
111421/25.08.2006, No. 113892/25.08.2006, No. 113893/25.08.2006, No.
113894/25.08.2006, No. 113895/25.08.2006, No. 113896/25.08.2006, No.
113897/25.08.2006, No. 113898/25.08.2006, No. 113899/25.08.2006, No.
113900/25.08.2006, No. 113901/25.08.2006, No. 113902/25.08.2006, No.
113903/25.08.2006, No. 113904/25.08.2006, No. 113905/25.08.2006, No.
113906/25.08.2006, No. 113907/25.08.2006, No. 113908/25.08.2006, No.
113909/25.08.2006, No. 113910/25.08.2006, No. 113911/25.08.2006, No.
113912/25.08.2006, No. 113913/25.08.2006, No. 113914/25.08.2006, No.
113915/25.08.2006, No. 114279/25.08.2006, No. 114280/25.08.2006, No.
114281/25.08.2006, No. 114282/25.08.2006, No. 114283/25.08.2006, No.

113314/25.08.2006, No. 113315/25.08.2006, No. 113316/25.08.2006, No. 113317/25.08.2006, No. 113318/25.08.2006, No. 113319/25.08.2006, No. 113320/25.08.2006, No. 113321/25.08.2006, No. 113322/25.08.2006, No. 112808/25.08.2006, No. 112809/25.08.2006, No. 112810/25.08.2006, No. 112811/25.08.2006, No. 112812/25.08.2006, No. 112813/25.08.2006, No. 112814/25.08.2006, No. 112815/25.08.2006, No. 112816/25.08.2006, No. 112817/25.08.2006, No. 112818/25.08.2006, No. 112819/25.08.2006, No. 112820/25.08.2006, No. 112821/25.08.2006, No. 112822/25.08.2006, No. 112823/25.08.2006, No. 112824/25.08.2006, No. 112825/25.08.2006, No. 112826/25.08.2006, No. 112826/25.08.2006, No. 112827/25.08.2006, No. 112828/25.08.2006, No. 112829/25.08.2006, No. 112830/25.08.2006, No. 112831/25.08.2006, No. 112832/25.08.2006, No. 112833/25.08.2006, No. 112834/25.08.2006, No. 112835/25.08.2006, No. 112836/25.08.2006, No. 113323/25.08.2006, No. 113324/25.08.2006, No. 113325/25.08.2006, No. 113326/25.08.2006, No. 113327/25.08.2006, No. 113328/25.08.2006, No. 113329/25.08.2006, No. 113330/25.08.2006, No. 113331/25.08.2006, No. 113332/25.08.2006, No. 113333/25.08.2006, No. 113334/25.08.2006, No. 113335/25.08.2006, No. 113336/25.08.2006, No. 113337/25.08.2006, No. 113338/25.08.2006, No. 113339/25.08.2006, No. 113340/25.08.2006, No. 113341/25.08.2006, No. 113342/25.08.2006, No. 113343/25.08.2006, No. 113344/25.08.2006, No. 113345/25.08.2006, No. 112860/25.08.2006, No. 112861/25.08.2006, No. 112862/25.08.2006, No. 112863/25.08.2006, No. 112864/25.08.2006, No. 112865/25.08.2006, No. 112866/25.08.2006, No. 112837/25.08.2006, No. 112838/25.08.2006, No. 112839/25.08.2006, No. 112840/25.08.2006, No. 112841/25.08.2006, No. 112842/25.08.2006, No. 112843/25.08.2006, No. 112844/25.08.2006, No. 112845/25.08.2006, No. 112846/25.08.2006, No. 112847/25.08.2006, No. 112848/25.08.2006, No. 112849/25.08.2006, No. 112850/25.08.2006, No. 112851/25.08.2006, No. 112852/25.08.2006, No. 112853/25.08.2006, No. 112854/25.08.2006, No. 112855/25.08.2006, No. 112856/25.08.2006, No. 112857/25.08.2006, No. 112858/25.08.2006, No. 112859/25.08.2006, No. 112999/25.08.2006, No. 113000/25.08.2006, No. 112929/25.08.2006, No. 112988/25.08.2006, No. 112954/25.08.2006, No. 112953/25.08.2006, No. 112877/25.08.2006, No. 109583/18.08.2006, No. 112960/25.08.2006, No. 112959/25.08.2006, No. 112943/25.08.2006, No. 112945/25.08.2006

RMGC internal unique code MMGA_1071

Proposal There is no liner proposed for the tailings pond;
SEE CONTENT CONTESTATION TYPE 3

Solution 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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	296
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 109043/07.08.2006 and No. 74513/08.08.2006
RMGC internal unique code	MMGA_1085
Proposal	Why did the surface of the tailings pond increase while the deposit-and consequently waste rock-decreased?
Solution	<p>The entire Tailings Management Facility (TMF) has a total area of 363 hectares including the Corna dam, the tailings basin, the Secondary Containment Dam (SCD) and the seepage treatment lagoons located downstream from the SCD dam. This area is presented in the town planning documentations (Industrial Area PUZ and Town Planning Certificate no. 78/26.04.2006). The tailings quantities to be deposited in the facility are presented in the feasibility studies.</p> <p>The footprint of the TMF has not been increased. In comparison with what was presented in PPR on December 2004 (367 hectares) the existing site has been decreased because the total volume of tailings was reduced from 218 million tons to 215 million tons.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	384
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 109221/14.08.2006 and No. 74624/15.08.2006
RMGC internal unique code	MMGA_1125
Proposal	<p>The questioner opposes the promotion of the Rosia Montana project and makes the following observations and commentaries: The tailings pond containing residual cyanide, situated upstream of the town of Abrud, can collapse and cause extreme damages.</p>
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>However, the project recognizes that in the highly unlikely case of a dam failure that an Emergency Preparation and Spill Contingency Management Plan must be implemented. This plan was submitted with the EIA as Plan I, Volume 28.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	384
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 109221/14.08.2006 and No. 74624/15.08.2006
RMGC internal unique code	MMGA_1130
Proposal	-The tailings'pond will be unlined, which constitutes a breach of the directives on groundwater protection;
Solution	<p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	1533
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111040/25.08.2006
RMGC internal unique code	MMGA_1210

Proposal	<p>The tailings dam and the waste deposit area are not lined;</p>
Solution	<p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>The directives indicated above require that the TMF design be protective of groundwater. For the Rosia Montana 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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	1533
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111040/25.08.2006
RMGC internal unique code	MMGA_1211

Proposal	<p>The tailings management facility is located above the town of Abrud, therefore the consequences may be catastrophic in case of dam failure.</p>
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>In addition, Chapter 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.</p> <p>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.</p> <p>For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	1834
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110969/25.08.2006 and No. 165089/07.09.2006
RMGC internal unique code	MMGA_1223
Proposal	<p>The questioner requests the Ministry of Environment and Water Management not to issue the environmental permit for the Rosia Montana mining operation project. The questioner made the following comments and proposals: the huge tailings management facility is located right above the town of Abrud, and the consequences may be catastrophic in case of dam failure.</p>
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>In addition, Chapter 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.</p> <p>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.</p> <p>For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	1920
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110904/25.08.2006
RMGC internal unique code	MMGA_1242
<p>Proposal</p> <p></p> <p>Solution</p>	<p>The tailings management facility is not lined and this fact infringes the European Directive regarding underground water protection, transposed into the Romanian legislation through DG 351/2005;</p> <hr/> <p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	1920
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110904/25.08.2006
RMGC internal unique code	MMGA_1243

Proposal	<p>The tailings management facility failure would have dramatic consequences being above the Abrud town</p>
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>In addition, Chapter 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.</p> <p>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.</p> <p>For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	2984
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111777/25.08.2006
RMGC internal unique code	MMGA_1265

Proposal	The tailings management facility does not observe the European directives;
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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.

Solution

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	912, 2984
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110063/22.08.2006 and No. 75189/23.08.2006, No. 111777/25.08.2006
RMGC internal unique code	MMGA_1267

Proposal The barrage slope angle of the tailings management facility is not correctly calculated

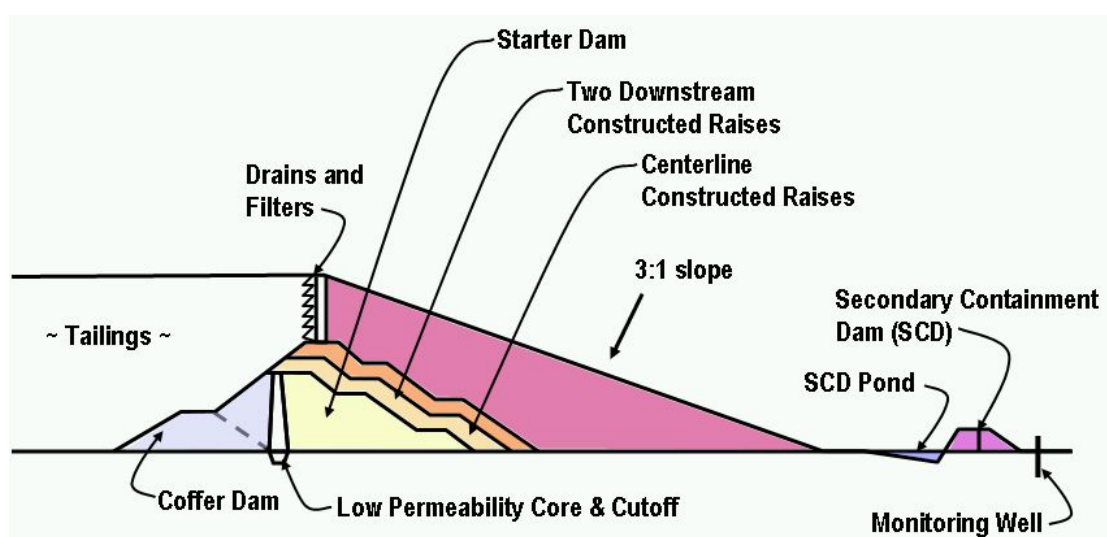
The slope angle of the Tailings Management Facility is correctly calculated, please see information below. As also explained in Plan F of the EIA, the downstream slope of the ultimate tailings dam was selected at a conservative angle, recommended by Best Available Techniques as defined by EU Directive.

The current dam design is very robust with many redundancies incorporated in the design. The design redundancies were based on a review of historical dam failures as reported by ICOLD. Tailings Dam Incidents, U.S. Committee on Large Dams - USCOLD, Denver, Colorado, ISBN 1-884575-03-X, 1994, 82 pages [compilation and analysis of 185 tailings dam incidents].

The TMF has been designed to meet international best practices, specifically, it will meet or exceed:

- All Romanian and International design criteria;
- The International Cyanide Management Code requirements;
- Earthquake Design Criteria – include the Maximum Credible Earthquake, Richter Magnitude 8;
- A water retention dam design for starter dam [(clay core, with rockfill downstream (2H:1V slopes) and upstream (1.75H:1V slopes)];
- Downstream constructed rockfill dam with 2H:1V slopes for the first two dam raises above the starter dam;
- Centerline constructed rockfill dam with 3H:1V slopes for subsequent raises.(Standard practice is for 1.5:1 to 1.75:1 slopes). The 3:1 slope increases stability and reduces the potential for failure).

Solution



Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	2984
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111777/25.08.2006
RMGC internal unique code	MMGA_1283

Proposal There is a major contradiction regarding the ore quantities which will be processed and the waste rock quantity which will be utilized at the barrage construction and open pits rehabilitation

There is no connection between the quantity of ore which will be mined for commercial purposes and the rocks used for initial construction of the Corna Dam or closure at the end of the mine's life. The Tailings Management Facility (TMF) Dam/Corna Dam will be built according to very specific engineering design. The "Tailings Facility Management Plan," Plan F of the EIA, describes that the dam will be built with rockfill materials for the shell of the dam, crushed rock for the drains and filter zones, and low permeability soil for the core of the dam. The rockfill for the dam shell zones will be obtained from either the onsite rock quarry or from waste rock (non-ore materials) from the mining operations,

Specifically, for the starter dam the rockfill for the shell zone will be obtained from the Şulei quarry. Subsequent raises will be constructed with rockfill from the mining operation. The crushed rock for the drain and filter zones will be obtained from the La Pârâul Porcului quarry. The low permeability soil core for the dam will be obtained from the thick colluvial deposits within the tailings basin slopes.

The use of "waste" rock to construct the dam raises serves two purposes. First, it allows storage of waste rock, minimizing additional waste rock stockpiles. Second, it provides a structural material for constructing the TMF dam without expanding existing, or creating new, borrow areas.

The Table below presents the waste rock tonnage that will be generated for each year of the mine life and indicates the location where the material will be deposited.

Solution	Year	Material Destinations									Total material Ktonnes	
		Crusher of Crs Stkp Ktonnes	Cetate Stkp Ktonnes	TMP Const Ktonnes	Cetate Dump Ktonnes	Cârnic Dump Ktonnes	Cârnic In-Pit Ktonnes	Orlea In-Pit Ktonnes	Jig Pit In-Pit Ktonnes	Mausoleum In-Pit Ktonnes		
	Preproductie	420	312			343						1,075
	1	11,342	7,807	4,812	9,125	2,914						36,000
	2	13,014	8,561	4,147	4,515	6,263						36,500
	3	13,320	3,751	3,196	8,287	7,946						36,500
	4	13,190	3,251	6,449	1,349	12,261						36,500
	5	13,300	4,015			18,685						36,000
	6	13,515	1,538	3,895		17,052						36,000
	7	14,248		2,877		18,875						36,000
	8	13,990		2,150		19,860						36,000
	9	14,881		2,838	11	14,664	3,606					36,000
	10	15,413		2,530			15,057					33,000
	11	15,317		2,125			15,558					33,000
	12	13,712		5,622					12,330	1,936		33,600
	13	14,212		2,299				15,111	1,614			33,236
	14	5,796		4,885				1,739				12,420
	15			2,941								
	16			2,941								
		185,671	29,235	53,707	23,287	118,863	34,221	15,850	13,944	1,939		471,831

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

14, 15, 16, 17, 21, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 151, 152, 158, 163, 164, 165, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 190, 196, 197, 198, 199, 200, 201, 204, 206, 210, 211, 212, 213, 215, 217, 218, 219, 220, 222, 223, 224, 225, 226, 227, 228, 229, 235, 236, 237, 238, 239, 240, 241, 244, 247, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 264, 272, 274, 275, 276, 277, 278, 279, 280, 281, 282, 286, 288, 289, 293, 297, 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No. 108386/19.07.2006andNo. 74152/AF/20.07.2006, No. 108384/19.07.2006andNo. 74150/AF/20.07.2006, No. 1081385/19.07.2006andNo. 74151/AF/20.07.2006, No. 1081330/17.07.2006andNo. 74153/AF/20.07.2006, No. 108444/21.07.2006andNo. 74177/AF/24.07.2006, No. 74173/AF/24.07.2006, No. 108407/20.07.2006andNo. 74172/AF/24.07.2006, No. 108408/20.07.2006andNo. 74171/AF/24.07.2006, No. 108479/24.07.2006andNo. 74179/AF/25.07.2006, No. 108449/21.07.2006andNo. 74180/AF/25.07.2006, No. 108478/24.07.2006andNo. 74181/AF/25.07.2006, No. 108475/24.07.2006andNo. 74182/AF/25.07.2006, No. 108474/24.07.2006andNo. 74183/AF/25.07.2006, No. 108474/24.07.2006andNo. 74184/AF/25.07.2006, No. 108473/24.07.2006andNo. 74185/AF/25.07.2006, No. 108472/24.07.2006, No. 108471/24.07.2006andNo. 74187/AF/25.07.2006, No. 108563/26.07.2006andNo. 74192/AF/26.07.2006, No. 108562/26.07.2006andNo. 108474/24.07.2006andNo. 74193/AF/26.07.2006, No. 108561/26.07.2006andNo. 74194/AF/26.07.2006, No. 108559/26.07.2006andNo. 74195/AF/26.07.2006, No. 108558/26.07.2006andNo. 74196/AF/26.07.2006, No. 108557/26.07.2006andNo. 74197/AF/26.07.2006, No. 108555/26.07.2006andNo. 74198/AF/26.07.2006, No. 108554/26.07.2006andNo. 74199/AF/26.07.2006, No. 108553/26.07.2006andNo. 74200/AF/26.07.2006, No. 108556/26.07.2006andNo. 74201/AF/26.07.2006, No. 108552/26.07.2006andNo. 74202/AF/26.07.2006, No. 108522/25.07.2006andNo. 74203/AF/26.07.2006, No. 108521/25.07.2006andNo. 74204/AF/26.07.2006, No. 108520/25.07.2006andNo. 74205/AF/26.07.2006, No. 108519/25.07.2006andNo. 74206/AF/26.07.2006, No. 108518/25.07.2006andNo. 74207/AF/26.07.2006, No. 108517/25.07.2006andNo. 74208/AF/26.07.2006, No. 108494/25.07.2006andNo. 74209/AF/26.07.2006, No. 108493/25.07.2006andNo. 74210/AF/26.07.2006, No. 108489/25.07.2006andNo. 74211/AF/26.07.2006, No. 108564/26.07.2006andNo. 74212/AF/26.07.2006, No. 108601/28.07.2006andNo. 74221/AF/28.07.2006, No. 108602/28.07.2006andNo. 74222/AF/28.07.2006, No. 108603/28.07.2006andNo. 74223/AF/28.07.2006, No. 108605/28.07.2006andNo. 74225/AF/28.07.2006, No. 108606/28.07.2006andNo. 74226/AF/28.07.2006, No. 108607/28.07.2006andNo. 74227/AF/28.07.2006, No. 108608/28.07.2006andNo. 74228/AF/28.07.2006, No. 108610/28.07.2006andNo. 74230/AF/28.07.2006, No. 108611/28.07.2006andNo. 74231/AF/28.07.2006, No. 108612/28.07.2006andNo. 74232/AF/28.07.2006, No. 108613/28.07.2006andNo. 74233/AF/28.07.2006, No. 108615/28.07.2006andNo. 74235/AF/28.07.2006, No. 108616/28.07.2006andNo. 74236/AF/28.07.2006, No. 108617/28.07.2006andNo. 74237/AF/28.07.2006, No. 108618/28.07.2006andNo. 74238/AF/28.07.2006, No. 108619/28.07.2006andNo. 74239/AF/28.07.2006, No. 108620/28.07.2006andNo. 74240/AF/28.07.2006, No. 108621/28.07.2006andNo. 74241/AF/28.07.2006, No. 108622/28.07.2006andNo. 74242/AF/28.07.2006, No. 108623/28.07.2006andNo. 74243/AF/28.07.2006, No. 108625/28.07.2006andNo. 74244/AF/28.07.2006, No. 108626/28.07.2006andNo. 74245/AF/28.07.2006, No. 108627/28.07.2006andNo. 74246/AF/28.07.2006, No. 108628/28.07.2006andNo. 74247/AF/28.07.2006, No. 108629/28.07.2006andNo. 74248/AF/28.07.2006, No. 108630/28.07.2006andNo. 74249/AF/28.07.2006, No. 108636/28.07.2006andNo. 74250/AF/28.07.2006, No. 108637/28.07.2006andNo. 74251/AF/28.07.2006, No. 108638/28.07.2006andNo. 74252/AF/28.07.2006, No. 108639/28.07.2006andNo. 74253/AF/28.07.2006, No. 108640/28.07.2006andNo. 74254/AF/28.07.2006, No. 10841/28.07.2006andNo. 74255/AF/28.07.2006, No. 108642/28.07.2006andNo. 74256/AF/28.07.2006, No. 108643/28.07.2006andNo. 74257/AF/28.07.2006, No. 108644/28.07.2006andNo. 74258/AF/28.07.2006, No. 108645/28.07.2006andNo. 74259/AF/28.07.2006, No.

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

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109467/16.08.2006andNo. 74888/18.08.2006, No. 109468/16.08.2006andNo. 74889/18.08.2006, No. 109469/16.08.2006andNo. 74890/18.08.2006, No. 109470/16.08.2006andNo. 74891/18.08.2006, No. 109471/16.08.2006andNo. 74892/18.08.2006, No. 109472/16.08.2006andNo. 74893/18.08.2006, No. 109473/16.08.2006andNo. 74894/18.08.2006, No. 109474/16.08.2006andNo. 74895/18.08.2006, No. 109475/16.08.2006andNo. 74896/18.08.2006, No. 109476/16.08.2006andNo. 74897/18.08.2006, No. 109477/16.08.2006andNo. 74898/18.08.2006, No. 109478/16.08.2006andNo. 7489918.08.2006, No. 109479/16.08.2006andNo. 74900/18.08.2006, No. 109480/16.08.2006andNo. 74901/18.08.2006, No. 109481/16.08.2006andNo. 74902/18.08.2006, No. 109482/16.08.2006andNo. 74903/18.08.2006, No. 109483/16.08.2006andNo. 74904/18.08.2006, No. 109484/16.08.2006andNo. 74905/18.08.2006, No. 109485/16.08.2006andNo. 74906/18.08.2006, No. 109486/16.08.2006andNo. 74907/18.08.2006, No. 109487/16.08.2006andNo. 74908/18.08.2006, No. 109488/16.08.2006andNo. 74909/18.08.2006, No. 109489/16.08.2006andNo. 74910/18.08.2006, No. 110134/23.08.2006andNo. 75245/23.08.2006, No. 11013523.08.2006andNo. 75246/23.08.2006, No. 110136/23.08.2006andNo. 75247/23.08.2006, No. 110441/25.08.2006, No. 110440/25.08.2006, No. 110439/25.08.2006, No. 110328/24.08.2006, No. 110329/25.08.2006, No. 110330/25.08.2006, No. 110331/25.08.2006, No. 110752/25.08.2006andNo. 7607505.09.2006, No. 110748/25.08.2006andNo. 76079/05.09.2006, No. 110747/25.08.2006andNo. 76080/05.09.2006, No. 110746/25.08.2006andNo. 76081/05.09.2006, No. 110741/25.08.2006andNo. 76086/05.09.2006, No. 110740/25.08.2006andNo. 76087/05.09.2006, No. 110739/25.08.2006andNo. 76088/05.09.2006, No. 110737/25.08.2006andNo. 76090/05.09.2006, No. 110736/25.08.2006andNo. 76091/05.09.2006, No. 110735/25.08.2006andNo. 76092/05.09.2006, No. 110732/25.08.2006andNo. 76095/05.09.2006, No. 110731/25.08.2006andNo. 76096/05.09.2006, No. 110730/25.08.2006andNo. 76097/05.09.2006, No. 110729/25.08.2006andNo. 76098/05.09.2006, No. 110728/25.08.2006andNo. 76099/05.09.2006, No. 110727/25.08.2006andNo. 76100/05.09.2006, No. 110726/25.08.2006andNo. 76101/05.09.2006, No. 110725/25.08.2006andNo. 76102/05.09.2006, No. 110852/25.08.2006andNo. 165062/06.09.2006, No. 110853/25.08.2006andNo. 165063/06.09.2006, No. 110854/25.08.2006andNo. 165064/06.09.2006, No. 110855/25.08.2006andNo. 165065/06.09.2006, No. 110856/25.08.2006andNo. 165066/06.09.2006, No. 110857/25.08.2006andNo. 165067/06.09.2006, No. 110858/25.08.2006andNo. 165068/06.09.2006, No. 110859/25.08.2006andNo. 165069/06.09.2006, No. 110860/25.08.2006andNo. 165070/06.09.2006, No. 110861/25.08.2006andNo. 165071/06.09.2006, No. 110862/25.08.2006andNo. 165072/06.09.2006, No. 110863/25.08.2006andNo. 165073/06.09.2006, No. 110864/25.08.2006andNo. 165074/06.09.2006, No. 110973/25.08.2006andNo. 165085/07.09.2006, No. 110963/25.08.2006, No. 110962/25.08.2006, No. 110961/25.08.2006, No. 110960/25.08.2006, No. 110959/25.08.2006, No. 110958/25.08.2006andNo., No. 110957/25.08.2006, No. 110956/25.08.2006, No. 110955/25.08.2006, No. 110954/25.08.2006, No. 110953/25.08.2006, No. 110952/25.08.2006, No. 110951/25.08.2006, No. 110950/25.08.2006, No. 110949/25.08.2006, No. 110948/25.08.2006, No. 110947/25.08.2006, No. 110946/25.08.2006, No. 110945/25.08.2006, No. 110944/25.08.2006, No. 110943/25.08.2006, No. 110942/25.08.2006, No. 110941/25.08.2006, No. 110940/25.08.2006, No. 110938/25.08.2006, No. 110937/25.08.2006, No. 110936/25.08.2006, No. 110935/25.08.2006, No. 110934/25.08.2006, No. 110929/25.08.2006, No. 110928/25.08.2006, No. 110927/25.08.2006, No. 110926/25.08.2006, No. 110925/25.08.2006andNo., No. 110924/25.08.2006andNo., No. 110922/25.08.2006, No. 110921/25.08.2006, No. 110920/25.08.2006, No. 110724/25.08.2006, No. 110723/25.08.2006, No. 110722/25.08.2006, No. 110721/25.08.2006, No. 110882/25.08.2006, No. 110901/25.08.2006, No. 110900/25.08.2006, No. 110899/25.08.2006, No. 110896/25.08.2006, No. 110895/25.08.2006andNo. 165164/07.09.2006, No. 110894/25.08.2006andNo. 165165/07.09.2006, No. 110893/25.08.2006andNo. 165166/07.09.2006, No. 110892/25.08.2006andNo.

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113002/25.08.2006, No. 113001/25.08.2006, No. 112103/25.08.2006, No.
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111547/25.08.2006andNo. 166047, No. 111546/25.08.2006, No.
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112092/25.08.2006, No. 112091/25.08.2006, No. 112090/25.08.2006, No.
112089/25.08.2006, No. 112088/25.08.2006, No. 112087/25.08.2006, No.
112086/25.08.2006, No. 112085/25.08.2006, No. 112084/25.08.2006, No.
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111554/25.08.2006, No. 111555/25.08.2006, No. 111556/25.08.2006, No.
111557/25.08.2006, No. 111558/25.08.2006, No. 111559/25.08.2006, No.
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111566/25.08.2006, No. 111567/25.08.2006, No. 111568/25.08.2006, No.
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111613/25.08.2006, No. 111614/25.08.2006, No. 111615/25.08.2006, No.
111616/25.08.2006, No. 111784/25.08.2006

Proposal

The tailings management facility is not lined;SEE THE CONTENT OF THE TYPE 1 CONTESTATION
Also, the questioner sends within the letter two points of view of some independent specialists

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.

Solution

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.

MMDD's item no. for the question
which includes the observation
identified by the RMGC internal
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No. 108386/19.07.2006 and No. 74152/AF/20.07.2006, No. 108384/19.07.2006 and No. 74150/AF/20.07.2006, No. 1081385/19.07.2006 and No. 74151/AF/20.07.2006, No. 1081330/17.07.2006 and No. 74153/AF/20.07.2006, No. 108444/21.07.2006 and No. 74177/AF/24.07.2006, No. 74173/AF/24.07.2006, No. 108407/20.07.2006 and No. 74172/AF/24.07.2006, No. 108408/20.07.2006 and No. 74171/AF/24.07.2006, No. 108479/24.07.2006 and No. 74179/AF/25.07.2006, No. 108449/21.07.2006 and No. 74180/AF/25.07.2006, No. 108478/24.07.2006 and No. 74181/AF/25.07.2006, No. 108475/24.07.2006 and No. 74182/AF/25.07.2006, No. 108474/24.07.2006 and No. 74183/AF/25.07.2006, No. 108474/24.07.2006 and No. 74184/AF/25.07.2006, No. 108473/24.07.2006 and No. 74185/AF/25.07.2006, No. 108472/24.07.2006, No. 108471/24.07.2006 and No. 74187/AF/25.07.2006, No. 108563/26.07.2006 and No. 74192/AF/26.07.2006, No. 108562/26.07.2006 and No. 108474/24.07.2006 and No. 74193/AF/26.07.2006, No. 108561/26.07.2006 and No. 74194/AF/26.07.2006, No. 108559/26.07.2006 and No. 74195/AF/26.07.2006, No. 108558/26.07.2006. and No. 74196/AF/26.07.2006, No. 108557/26.07.2006 and No. 74197/AF/26.07.2006, No. 108555/26.07.2006 and No. 74198/AF/26.07.2006, No. 108554/26.07.2006 and No. 74199/AF/26.07.2006, No. 108553/26.07.2006 and No. 74200/AF/26.07.2006, No. 108556/26.07.2006 and No. 74201/AF/26.07.2006, No. 108552/26.07.2006 and No. 74202/AF/26.07.2006, No. 108522/25.07.2006 and No. 74203/AF/26.07.2006, No. 108521/25.07.2006 and No. 74204/AF/26.07.2006, No. 108520/25.07.2006 and No. 74205/AF/26.07.2006, No. 108519/25.07.2006 and No. 74206/AF/26.07.2006, No. 108518/25.07.2006 and No. 74207/AF/26.07.2006, No. 108517/25.07.2006 and No. 74208/AF/26.07.2006, No. 108494/25.07.2006 and No. 74209/AF/26.07.2006, No. 108493/25.07.2006 and No. 74210/AF/26.07.2006, No. 108489/25.07.2006 and No. 74211/AF/26.07.2006, No. 108564/26.07.2006 and No. 74212/AF/26.07.2006, No. 108601/28.07.2006 and No. 74221/AF/28.07.2006, No. 108602/28.07.2006 and No. 74222/AF/28.07.2006, No. 108603/28.07.2006 and No. 74223/AF/28.07.2006, No. 108605/28.07.2006 and No. 74225/AF/28.07.2006, No. 108606/28.07.2006 and No. 74226/AF/28.07.2006, No. 108607/28.07.2006 and No. 74227/AF/28.07.2006, No. 108608/28.07.2006 and No. 74228/AF/28.07.2006, No. 108610/28.07.2006 and No. 74230/AF/28.07.2006, No. 108611/28.07.2006 and No. 74231/AF/28.07.2006, No. 108612/28.07.2006 and No. 74232/AF/28.07.2006, No. 108613/28.07.2006 and No. 74233/AF/28.07.2006, No. 108615/28.07.2006 and No. 74235/AF/28.07.2006, No. 108616/28.07.2006 and No. 74236/AF/28.07.2006, No. 108617/28.07.2006 and No. 74237/AF/28.07.2006, No. 108618/28.07.2006 and No. 74238/AF/28.07.2006, No. 108619/28.07.2006 and No. 74239/AF/28.07.2006, No. 108620/28.07.2006 and No. 74240/AF/28.07.2006, No. 108621/28.07.2006 and No. 74241/AF/28.07.2006, No. 108622/28.07.2006 and No. 74242/AF/28.07.2006, No. 108623/28.07.2006 and No. 74243/AF/28.07.2006, No. 108625/28.07.2006 and No. 74244/AF/28.07.2006, No. 108626/28.07.2006 and No. 74245/AF/28.07.2006, No. 108627/28.07.2006 and No. 74246/AF/28.07.2006, No. 108628/28.07.2006 and No. 74247/AF/28.07.2006, No.

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

110648/25.08.2006, No. 110647/25.08.2006, No. 110646/25.08.2006, No.
110645/25.08.2006, No. 110639/25.08.2006, No. 110637/25.08.2006, No.
110634/25.08.2006, No. 110629/25.08.2006, No. 110628/25.08.2006, No.
110622/25.08.2006, No. 110621/25.08.2006, No. 110620/25.08.2006, No.
111064/25.08.2006, No. 111060/25.08.2006, No. 111042/25.08.2006, No.
111041/25.08.2006, No. 111039/25.08.2006, No. 111038/25.08.2006 and No.
75929/04.09.2006, No. 111037/25.08.2006 and No. 75930/04.09.2006, No.
111036/25.08.2006 and No. 75931/04.09.2006, No. 111035/25.08.2006, No.
111033/25.08.2006, No. 111018/25.08.2006, No. 111012/25.08.2006, No.
111011/25.08.2006, No. 111010/25.08.2006, No. 111009/25.08.2006, No.
110581/25.08.2006, No. 110580/25.08.2006, No. 110579/25.08.2006, No.
110578/25.08.2006, No. 110577/25.08.2006, No. 110576/25.08.2006 and No.
75843/1.09.2006, No. 110575/23.08.2006 and No. 75844/1.09.2006, No.
110574/25.08.2006 and No. 75845/1.09.2006, No. 110573/25.08.2006 and No.
75846/1.09.2006, No. 110572/25.08.2006 and No. 75847/1.09.2006, No.
110571/25.08.2006 and No. 75848/1.09.2006, No. 110570/25.08.2006 and No.
75849/1.09.2006, No. 110569/25.08.2006 and No. 75850/1.09.2006, No.
110568/25.08.2006 and No. 75851/1.09.2006, No. 110567/25.08.2006 and No.
75852/1.09.2006, No. 110566/25.08.2006 and No. 75853/1.09.2006, No.
110565/25.08.2006 and No. 75854/1.09.2006, No. 110564/25.08.2006 and No.
75855/1.09.2006, No. 110563/25.08.2006 and No. 75856/1.09.2006, No.
110562/25.08.2006 and No. 75857/1.09.2006, No. 110561/25.08.2006 and No.
75858/1.09.2006, No. 110560/25.08.2006 and No. 75859/1.09.2006, No.
110559/25.08.2006, No. 110558/25.08.2006, No. 110557/25.08.2006, No.
110556/25.08.2006, No. 110555/25.08.2006, No. 110554/25.08.2006, No.
110553/25.08.2006, No. 110552/25.08.2006, No. 111000/25.08.2006 and No.
75967/04.09.2006, No. 110997/25.08.2006 and No. 75970/04.09.2006, No.
110996/25.08.2006 and No. 75971/04.09.2006, No. 110995/25.08.2006, No.
1100994/25.08.2006, No. 111993/25.08.2006, No. 110991/25.08.2006, No.
110668/25.08.2006, No. 110669/25.08.2006, No. 110670/25.08.2006, No.
110671/25.08.2006, No. 110672/25.08.2006, No. 110673/25.08.2006, No.
110551/25.08.2006, No. 110550/25.08.2006, No. 110549/25.08.2006, No.
110548/25.08.2006, No. 110547/25.08.2006, No. 110546/25.08.2006, No.
110545/25.08.2006, No. 110544/25.08.2006, No. 110543/25.08.2006, No.
110542/25.08.2006, No. 110541/25.08.2006, No. 110540/25.08.2006, No.
110539/25.08.2006, No. 110538/25.08.2006, No. 110537/25.08.2006, No.
110536/25.08.2006, No. 110535/25.08.2006, No. 110534/25.08.2006, No.
110533/25.08.2006, No. 110532/25.08.2006, No. 110531/25.08.2006, No.
110530/25.08.2006, No. 110529/25.08.2006, No. 110528/25.08.2006, No.
110527/25.08.2006, No. 110526/25.08.2006, No. 110525/25.08.2006, No.
110524/25.08.2006, No. 110523/25.08.2006, No. 110522/25.08.2006, No.
110674/25.08.2006, No. 110675/25.08.2006, No. 110676/25.08.2006, No.
110677/25.08.2006, No. 110678/25.08.2006, No. 110679/25.08.2006, No.
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110687/25.08.2006, No. 110686/25.08.2006, No. 110688/25.08.2006, No.
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110692/25.08.2006, No. 110693/25.08.2006, No. 110694/25.08.2006, No.
110695/25.08.2006, No. 110696/25.08.2006, No. 110791/25.08.2006, No.
110792/25.08.2006, No. 110789/25.08.2006, No. 110788/25.08.2006, No.
110786/25.08.2006, No. 110784/25.08.2006, No. 110717/25.08.2006, FR.No., No.
110715/25.08.2006, No. 110711/25.08.2006, No. 110710/25.08.2006, No.
110708/25.08.2006, No. 110704/25.08.2006, No. 110702/25.08.2006, No.
110701/25.08.2006, No. 110815/25.08.2006, No. 110816/25.08.2006, No.
110781/25.08.2006, No. 110817/25.08.2006, No. 110780/25.08.2006, No.
110818/25.08.2006, No. 110819/25.08.2006, No. 110820/25.08.2006, No.
110821/25.08.2006, No. 110697/25.08.2006, No. 110778/25.08.2006, No.
110777/25.08.2006, No. 110776/25.08.2006, No. 110775/25.08.2006, No.
110774/25.08.2006, No. 110773/25.08.2006, No. 110772/25.08.2006, No.

111227/25.08.2006, No. 111226/25.08.2006, No. 111225/25.08.2006, No. 111224/25.08.2006, No. 111223/25.08.2006, No. 111222/25.08.2006, No. 111221/25.08.2006, No. 111220/25.08.2006, No. 111219/25.08.2006, No. 111218/25.08.2006, No. 111217/25.08.2006, No. 111216/25.08.2006, No. 111215/25.08.2006, No. 111214/25.08.2006, No. 111213/25.08.2006, No. 111212/25.08.2006, No. 111211/25.08.2006, No. 111210/25.08.2006, No. 111209/25.08.2006, No. 111208/25.08.2006, No. 111207/25.08.2006, No. 111206/25.08.2006, No. 111205/25.08.2006, No. 111204/25.08.2006, No. 111203/25.08.2006, No. 111202/25.08.2006, No. 111201/25.08.2006, No. 111200/25.08.2006, No. 111199/25.08.2006, No. 111198/25.08.2006, No. 111197/25.08.2006, No. 111196/25.08.2006, No. 111195/25.08.2006, No. 111238/25.08.2006, No. 111194/25.08.2006, No. 111165/25.08.2006, No. 111134/25.08.2006, No. 111138/25.08.2006, No. 111139/25.08.2006, No. 111140/25.08.2006, No. 111122/25.08.2006, No. 111119/25.08.2006, No. 111117/25.08.2006, No. 111116/25.08.2006, No. 111148/25.08.2006, No. 111090/25.08.2006, No. 111101/25.08.2006, No. 111100/25.08.2006, No. 111099/25.08.2006, No. 111098/25.08.2006, No. 111097/25.08.2006, No. 111095/25.08.2006, No. 111094/25.08.2006, No. 111133/25.08.2006, No. 111132/25.08.2006, No. 111131/25.08.2006, No. 111348/25.08.2006, No. 111074/25.08.2006, No. 111078/25.08.2006, No. 111079/25.08.2006, No. 111080/25.08.2006, No. 111081/25.08.2006, No. 111765/25.08.2006, No. 112172/25.08.2006, No. 112169/25.08.2006, No. 112170/25.08.2006, No. 112925/25.08.2006, No. 112926/25.08.2006, No. 111783/25.08.2006, No. 112927/25.08.2006, No. 112928/25.08.2006, No. 112919/25.08.2006, No. 112907/25.08.2006, No. 112908/25.08.2006, No. 112909/25.08.2006, No. 112905/25.08.2006, No. 112896/25.08.2006, No. 112897/25.08.2006, No. 112898/25.08.2006, No. 112899/25.08.2006, No. 112900/25.08.2006, No. 112895/25.08.2006, No. 111347/25.08.2006, No. 111346/25.08.2006, No. 111345/25.08.2006, No. 111344/25.08.2006, No. 111342/25.08.2006, No. 111107/25.08.2006, No. 111106/25.08.2006, No. 111353/25.08.2006, No. 114726/31.08.2006, No. 114727/31.08.2006, No. 114731/31.08.2006, No. 114736/15.09.2006, No. 114274/28.08.2006, No. 114717/28.08.2006, No. 114723/31.08.2006, No. 114275/28.08.2006, No. 114278/28.08.2006, No. 114277/28.08.2006, No. 114276/28.08.2006, No. 109583/18.08.2006, No. 112960/25.08.2006, No. 112959/25.08.2006, No. 112943/25.08.2006, No. 112945/25.08.2006, No. 115103/13.10.2006, No. 116056/11.12.2006, No. 169324/06.11.2006, No. 169323/06.11.2006, No. 169322/06.11.2006, No. 169321/06.11.2006, No. 114373/169078/10.10.2006, No. 114903/05.10.2006

RMGC internal unique code MMGA_1293

Proposal The proposed waste deposits will be not constructed according to the legislation in force;SEE THE CONTENT OF THE TYPE 1 CONTESTATION
Also, the questioner sends within the letter two points of view of some independent specialists

Solution 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
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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.

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

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- 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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3023
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 112906/25.08.2006
RMGC internal unique code	MMGA_1319

Proposal	Which is the list with specialists who assume the liability for the "tailings management facility" operation?
Solution	<p>The specialists and experts who have designed and engineered the Tailings Management Facility at the Roşia Montană Project include:</p> <ul style="list-style-type: none"> • The general Designer, elutriation basin for waste rock, S.C. Ipromin S.A.; • The Expert Designer is MWH International; • The basin's project verification is realized by Prof. Şelarescu Mircea; • The expertise report on basin safety has been drawn up by Prof. Ph. Stematiu Dan. <p>The dam must be certified for safety prior to operations by the National Commission for Dams Safety (CONSIB).</p> <p>RMGC will be responsible for its safety and on-going working condition.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3027
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111774/25.08.2006
RMGC internal unique code	MMGA_1331

Proposal The extreme rainfalls and how these will affect the cyanide spreading into the underground and surface waters were not taken into account

The proposed Tailings Management Facility (TMF) is 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.

The TMF has been designed to prevent pollution of groundwater and to prevent catastrophic failure. Specifically, the design features include an engineered liner system within the TMF basin which consists of colluvium, re-compacted to meet a permeability specification of 1×10^{-6} cm/sec, 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 sump below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline. In addition, a comprehensive monitoring program as outlined in Plan F of the EIA report will be established to confirm that the design and operational parameters are being met.

Solution

The facility has been designed for storage of the runoff from two Probable Maximum Precipitation (PMP) events. This is generally referred to as the Probable Maximum Flood (PMF). This is more rain than has ever been recorded in this area. Additionally, a spillway will be incorporated into each dam crest to provide for controlled outlet of water in the unlikely event that the water rises to the dam crest.

The cyanide used in operations will be carefully handled according to EU guidelines and safely contained. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the Tailings Management Facility will degrade rapidly. This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques by the EU.

For more details on the PMP and PMF calculations, please see the Meteorological Baseline in the original EIA documents.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	<p>647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 901, 911, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1880, 1885, 1886, 1887, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1910, 1911, 1913, 1914, 1915, 1916, 1917, 1918, 2994, 2995, 2996, 2997, 2998, 2999, 3002, 3003, 3004, 3005, 3006, 3007, 3008, 3009, 3010, 3011, 3012, 3013, 3014, 3017, 3018, 3031, 3032, 3033, 3036, 3037, 3063, 3074, 3077, 3078, 3079, 3080, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3090, 3091, 3092, 3093, 3094, 3095, 3096, 3097, 3098, 3099, 3100, 3101, 3102, 3103, 3104, 3105, 3106, 3137, 3138, 3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3151, 3152, 3153, 3154, 3155, 3156, 3157, 3158, 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3248, 3249, 3250</p>
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	<p>No. 109602/18.08.2006 and No. 74921/21.08.2006, No. 109603/18.08.2006 and No. 74922/21.08.2006, No. 109604/18.08.2006 and No. 74923/21.08.2006, No. 109605/18.08.2006 and No. 74924/21.08.2006, No. 109606/18.08.2006 and No. 74925/21.08.2006, No. 109607/18.08.2006 and No. 74926/21.08.2006, No. 109608/18.08.2006 and No. 74927/21.08.2006, No. 109609/18.08.2006 and No. 74928/21.08.2006, No. 109610/18.08.2006 and No. 74929/21.08.2006, No. 109611/18.08.2006 and No. 74930/21.08.2006, No. 109612/18.08.2006 and No. 74931/21.08.2006, No. 109613/18.08.2006 and No. 74932/21.08.2006, No. 109614/18.08.2006 and No. 74933/21.08.2006, No. 109615/18.08.2006 and No. 74934/21.08.2006, No. 109616/18.08.2006 and No. 74935/21.08.2006, No. 109617/18.08.2006 and No. 74936/21.08.2006, No. 109618/18.08.2006 and No. 74937/21.08.2006, No. 109619/18.08.2006 and No. 74938/21.08.2006, No. 109620/18.08.2006 and No. 74939/21.08.2006, No. 109621/18.08.2006 and No. 74940/21.08.2006, No. 109622/18.08.2006 and No. 74941/21.08.2006, No. 109623/18.08.2006 and No. 74942/21.08.2006, No. 109624/18.08.2006 and No. 74943/21.08.2006, No. 109625/18.08.2006 and No. 74944/21.08.2006, No. 109626/18.08.2006 and No. 74945/21.08.2006, No. 109627/18.08.2006 and No. 74946/21.08.2006, No. 109628/18.08.2006 and No. 74947/21.08.2006, No. 109629/18.08.2006 and No. 74948/21.08.2006, No. 109630/18.08.2006 and No. 74949/21.08.2006, No. 109631/18.08.2006 and No. 74950/21.08.2006, No. 109632/18.08.2006 and No. 74951/21.08.2006, No. 109633/18.08.2006 and No. 74952/21.08.2006, No. 109634/18.08.2006 and No. 74953/21.08.2006, No. 109635/18.08.2006 and No. 74954/21.08.2006, No. 109636/18.08.2006 and No. 74955/21.08.2006, No. 109637/18.08.2006 and No. 74956/21.08.2006, No. 109638/18.08.2006 and No. 74957/21.08.2006, No. 109639/18.08.2006 and No. 74958/21.08.2006, No. 109640/18.08.2006 and No. 74959/21.08.2006, No. 109641/18.08.2006 and No. 74960/21.08.2006, No. 109643/18.08.2006 and No.</p>

110412/24.08.2006, No. 110415/24.08.2006, No. 110416/24.08.2006, No. 110417/24.08.2006, No. 110418/24.08.2006, No. 110419/24.08.2006, No. 110420/24.08.2006, No. 110421/24.08.2006, No. 110422/24.08.2006, No. 110423/24.08.2006, No. 110424/24.08.2006, No. 110425/24.08.2006, No. 110426/24.08.2006, No. 110427/24.08.2006, No. 110428/24.08.2006, No. 110429/24.08.2006, No. 110430/24.08.2006, No. 110431/24.08.2006, No. 110432/24.08.2006, No. 110433/24.08.2006, No. 110434/24.08.2006, No. 110923/25.08.2006, No. 110918/25.08.2006, No. 110917/25.08.2006, No. 110916/25.08.2006, No. 110914/25.08.2006, No. 110913/25.08.2006, No. 110912/25.08.2006, No. 110911/25.08.2006, No. 110910/25.08.2006, No. 110909/25.08.2006, No. 110908/25.08.2006, No. 110884/25.08.2006, No. 110883/25.08.2006, No. 110881/25.08.2006, No. 110880/25.08.2006, No. 110879/25.08.2006, No. 110878/25.08.2006, No. 110877/25.08.2006, No. 110876/25.08.2006, No. 111341/25.08.2006, No. 111340/25.08.2006, No. 111339/25.08.2006, No. 111338/25.08.2006, No. 111337/25.08.2006, No. 111336/25.08.2006, No. 111333/25.08.2006, No. 111332/25.08.2006, No. 111331/25.08.2006, No. 111330/25.08.2006, No. 111328/25.08.2006, No. 111329/25.08.2006, No. 111327/25.08.2006, No. 111326/25.08.2006, No. 111325/25.08.2006, No. 111324/25.08.2006, No. 111323/25.08.2006, No. 111322/25.08.2006, No. 111321/25.08.2006, No. 111320/25.08.2006, No. 112997/25.08.2006, No. 110872/25.08.2006, No. 110873/25.08.2006, No. 110874/25.08.2006, No. 110870/25.08.2006, No. 110865/25.08.2006, No. 111786/25.08.2006, No. 112950/25.08.2006, No. 112951/25.08.2006, No. 111365/25.08.2006, 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, No. 111193/25.08.2006, No. 111192/25.08.2006, 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, No. 111176/25.08.2006, No. 111175/25.08.2006, No. 111174/25.08.2006, No. 111173/25.08.2006, No. 111172/25.08.2006, No. 111171/25.08.2006, No. 111170/25.08.2006, No. 111169/25.08.2006, No. 111168/25.08.2006, No. 111166/25.08.2006, No. 111162/25.08.2006, No. 111161/25.08.2006, No. 111160/25.08.2006, No. 111159/25.08.2006, No. 111364/25.08.2006, No. 111363/25.08.2006, No. 111362/25.08.2006, No. 111361/25.08.2006, No. 111359/25.08.2006, No. 111352/25.08.2006, No. 111360/25.08.2006, No. 111351/25.08.2006, No. 111309/25.08.2006, No. 111308/25.08.2006, No. 111307/25.08.2006, No. 111306/25.08.2006, No. 111305/25.08.2006, No. 111304/25.08.2006, No. 111303/25.08.2006, No. 111302/25.08.2006, No. 111301/25.08.2006, No. 111300/25.08.2006, No. 111298/25.08.2006, No. 111297/25.08.2006, No. 111296/25.08.2006, No. 111295/25.08.2006, No. 111293/25.08.2006, No. 111292/25.08.2006, No. 111291/25.08.2006, No. 111290/25.08.2006, No. 111289/25.08.2006, No. 111288/25.08.2006, No. 111287/25.08.2006, No. 111286/25.08.2006, No. 111317/25.08.2006, No. 111316/25.08.2006, No. 111149/25.08.2006

RMGC internal unique code

MMGA_1347

Proposal

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
SEE THE CONTENT OF THE TYPE 2 CONTESTATION

Tailings Management Facility

Solution

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3046
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 112982/25.08.2006
RMGC internal unique code	MMGA_1359
Proposal	RMGC ignores the tailings management facility lining

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.

Solution

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3046
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 112982/25.08.2006
RMGC internal unique code	MMGA_1360
Proposal	The project contravenes to the EU Directive regarding the underground waters which stipulates zero emissions in the case of the cyanide

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.

Solution

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3114, 3122
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 112980/25.08.2006, No. 112979/25.08.2006
RMGC internal unique code	MMGA_1380
Proposal	<p>The questioner requests the MMGA not to issue the environment permit for Rosia Montana mining project, formulating the following remarks and comments: the tailings management facility is not lined, thus violating the Directive regarding the underground water protection.</p>
Solution	<p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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 (1x10⁻⁶ 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.</p> <p>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:</p> <ul style="list-style-type: none"> • A low permeability (1x10⁻⁶ cm/sec) cut off wall within the foundation of the starter dam to control seepage; • A low permeability (1x10⁻⁶ 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. <p>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</p>

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.”*
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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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	1794, 1798, 1799, 3117, 3119, 3120, 3121
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110738/25.08.2006 and No. 76089/05.09.2006, No. 110734/25.08.2006 and No. 76093/05.09.2006, No. 110733/25.08.2006 and No. 76094/05.09.2006, No. 112996/25.08.2006, No. 112995/25.08.2006, No. 112994/25.08.2006, No. 112993/25.08.2006
RMGC internal unique code	MMGA_1397
Proposal	The questioner requests the MMGA not to emit the environment permit for Rosia Montana 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;

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.

Solution

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3234
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111435/25.08.2006
RMGC internal unique code	MMGA_1416

Proposal The tailings management facility failure will determine the contamination of the surface waters with cyanide seepage

The proposed Tailings Management Facility (TMF) is 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. In addition, a comprehensive monitoring program as outlined in Plan F of the EIA report will be established to confirm the design and operational parameters are being met.

The TMF has been designed to prevent pollution of groundwater and to prevent catastrophic failure. Specifically, the design features include an engineered liner system within the TMF basin which consists of colluvium, re-compacted to meet a permeability specification of 1×10^{-6} cm/sec, 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 sump below the toe of the tailings dam to collect and contain any seepage that does extend beyond the dam centerline.

Solution Cyanide is used in hundreds of gold mines and in many other industries around the world. At Roşia Montană, the Tailings Management Facility (TMF) will be constructed to the highest international standards. It will be an environmentally safe construction for permanent deposition of detoxified tailings resulting from ore processing. Because detoxification will take place before the tailings are deposited to the TMF, they will contain very low concentrations of cyanide (5-7ppm) which is below the regulatory limit of 10ppm recently adopted in the EU Mine Waste Directive and well below international standards of 50 ppm.

The cyanide used in operations will be carefully handled according to EU guidelines and safely contained. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the Tailings Management Facility will degrade rapidly. This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques by the EU.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3236, 3237, 3238, 3240, 3241
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111449/25.08.2006, No. 111068/25.08.2006, No. 111350/25.08.2006, No. 111294/25.08.2006, No. 111163/25.08.2006
RMGC internal unique code	MMGA_1421
Proposal	The questioner does not agree to the Rosia Montana project implementation formulating the following remarks and comments: The tailings management facility location represents a danger for the Abrud town;
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3242
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111123/25.08.2006
RMGC internal unique code	MMGA_1429

Proposal	The tailings management facility with huge quantities of poisons would constitute a permanent danger
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Solution	<p>The Tailings Management Facility (TMF) at the Roşia Montană Project (RMP) will be constructed to the highest international standards. It will be an environmentally safe construction for permanent deposition of detoxified tailings resulting from ore processing. Because cyanide detoxification will take place before the tailings are deposited in the TMF, they will contain very low concentrations of cyanide (5-7ppm) which is below the regulatory limit of 10ppm recently adopted in the EU Mine Waste Directive for discharge to a storage pond.</p> <p>Cyanide is used in hundreds of gold mines and many industries around the world. The cyanide used in RMP operations will be carefully controlled according to EU guidelines and safely contained in a series of ponds and lagoons on the project site to prevent groundwater pollution. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the TMF will degrade rapidly. This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques (BAT) by the EU.</p> <p>Not only will detoxified cyanide from the mine be contained in world-class TMF, but RMGC is committed to environmental rehabilitations from past poor mining practices. The area will be less polluted after the project is completed than it is now.</p> <p>At the end of the mine's operation, the TMF will undergo rigorous closure procedures in accordance with all applicable Romanian and EU regulations. The area will eventually be covered with successive layers of clay and top soil for vegetation. Further information on the operation, maintenance and closure of the TMF can be found in the EIA, Plan F, "Tailings Facility Management Plan."</p>
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Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3242
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111123/25.08.2006
RMGC internal unique code	MMGA_1430

Proposal	<p>The cyanides through evaporation will act against the biodiversity and will infest the underground waters</p>
Solution	<p>The storage of tailings in the Corna valley will not contaminate groundwater. 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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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. Cyanide is used in hundreds of gold mines and in many other industries around the world. At</p>

Roşia Montană, the Tailings Management Facility (TMF) will be constructed to the highest international standards. It will be an environmentally safe construction for permanent deposition of detoxified tailings resulting from ore processing. Because detoxification will take place before the tailings are deposited to the TMF, they will contain very low concentrations of cyanide (5-7ppm) which is below the regulatory limit of 10ppm recently adopted in the EU Mine Waste Directive for discharge to a storage pond.

The cyanide used in operations will be carefully handled according to EU guidelines and safely contained. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the Tailings Management Facility will degrade rapidly to levels well below maximum regulatory levels. This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques by the EU.

As part of the EIA development a series of air quality models were developed to assess air quality during the construction, operations, and closure phases of the project. These studies indicated that concentrations were generally low and fell below the limit values in the populated areas. The initial air dispersion modelling only considered the TMF decant pond, but considered both the summer and winter periods. The breakdown of metal-cyanide complexes to HCN is slow enough in the TMF, that volatilisation from the tailings beach is not considered. The maximum 1-hour averages in air at ground level are less than 400 µg/m³ compared to a commonly applied limit of 5,000 µg/m³. This limit is taken from the American Conference of Governmental Industrial Hygienists (ACGIH). This limit is often considered too conservative as a ceiling limit. The Board of Directors of the International Cyanide Management Institute has announced their intent to evaluate cyanide air limits for the Cyanide Code Implementation Guidance document of the International Cyanide Code

(http://www.cyanidecode.org/whatnew/Revision_Standard.pdf). The modification being evaluated would establish an 11,000 µg/m³-ceiling limit (equivalent to 10 ppm) and maintain the 5,000 µg/m³ (4.7 ppm) limit as an exposure limit for a continuous 8-hour period. Maximum HCN concentrations volatilised from the Roşia Montană TMF are indicated to be more than an order of magnitude below these limits directly above the source area, and more than two orders of magnitude lower outside of the site boundaries.

Another consideration is the “rainout” of HCN from the air, in which the rain would contain elevated cyanide. HCN uptake in precipitation is a very minor component of HCN fate in the atmosphere (Mudder, et al., 2001). Atmospheric concentrations of HCN are not very soluble in water, and rainout does not effectively reduce atmospheric HCN concentrations (Cicerone and Zellner, 1983). By inference and because of the low predicted atmospheric HCN concentration, concentrations of cyanide in rainfall are unlikely to be measurable above background in and around the Roşia Montană Project area.

- For details regarding issues on the cyanide use in technological process, on cyanide balance, and on emissions and cyanide effects on the air quality: EIA Report, Chapter 2, Chapter 4.1 and Chapter 4.2.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	3262
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 111343/25.08.2006
RMGC internal unique code	MMGA_1448

Proposal	The tailings management facility, in case of failure, will endanger the Abrud town
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	33
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110003/28.08.2006
RMGC internal unique code	MMGA_1471
Proposal	<p>The questioner does not agree to the Rosia Montana project implementation enumerating few destructive trans-boundary effects on environment, among which: Terrestrial and aquatic ecosystem contamination with cyanides</p>
Solution	<p>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 RMGC 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. This report provides an analysis of the water quality of the upper catchments of Roşia Montană and an analysis of the impacts of future mining and collection and treatment operations. A new model INCA-Mine has been developed and the model has been applied to the four upper catchments at Roşia Montană, as well as the complete river system. The model has been used to assess the impacts of the collecting and treating the existing pollution sources as part of the project and shows that significant improvements in water quality in the downstream rivers will be achieved. A key question is the impact of cyanide pollution in the event of an accidental discharge from the tailings dam. This effect has been simulated and it is shown that because of dilution, dispersion and degradation that cyanide concentrations will be below the standards required at the border and in the River Tisza.</p> <p>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. The Chapter concludes that under normal operating conditions, there would be no significant impact for downstream river basins/transboundary conditions.</p> <p>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.</p> <p>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.</p> <p>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 Mures joins it.</p> <p>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</p>

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 as Annex 5.1. under the title of the Mureş River Modelling Program together with the full modelling report is presented

Cyanide is used in hundreds of gold mines and in many other industries around the world. At Rosia Montana, the TMF will be constructed to the highest international standards. It will be an environmentally safe construction for permanent deposition of detoxified tailings resulting from ore processing. Sophisticated equipment will be used for geotechnical and water level monitoring. Because detoxification will take place before the tailings are deposited to the TMF, they will contain very low concentrations of cyanide (5-7ppm) which is below the regulatory limit of 10ppm recently adopted in the EU Mine Waste Directive for discharge to storage ponds.

The cyanide used in operations will be carefully handled according to EU guidelines and safely contained. Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the Tailings Management Facility will degrade rapidly. This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques by the EU.

For further information, please see Chapter 3.0 of Plan F, "The Tailings Facility Management Plan" of the EIA and Chapter 6 of Plan F, for description of the comprehensive monitoring program that will be established to confirm that the design and operational parameters are being met.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	34
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 114516/13.09.2006
RMGC internal unique code	MMGA_1476

Proposal	The foreseen barrage does not present guarantees in extreme situations;
Solution	<p>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.</p> <p>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. 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.</p> <p>Additional study was done regarding earthquakes, and, as indicated in the EIA the TMF is engineered to withstand the Maximum Credible Earthquake which could be projected to occur during the life of the Roşia Montană Project.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	35
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 116015/08.12.2006
RMGC internal unique code	MMGA_1485
Proposal	Strong assurances against the seepages from the tailings management facility and the cyanide vapors which may cross the boundary can not be given
Solution	<p>The designs for the Tailings Management Facility (TMF) have considered seepage from the dam and the tailings basin. The designs are 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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

With respect to cyanide, it is used in hundreds of gold mines and in many other industries around the world. At Roşia Montană, the Tailings Management Facility (TMF) will be constructed to the highest international standards. It will be an environmentally safe construction for permanent deposition of detoxified tailings resulting from ore processing. Because detoxification will take place before the tailings are deposited to the TMF, they will contain very low concentrations of cyanide (5-7ppm) which is below the regulatory limit of 10ppm recently adopted in the EU Mine Waste Directive for discharge to seepage ponds.

The cyanide used in operations will be carefully handled according to EU guidelines and safely contained. Tailings deposited in the TMF will be treated to contain cyanide levels below the new EU directive of 10 parts per million (ppm), and well below international standards of 50 ppm.

Cyanide rapidly breaks down to harmless substances under normal atmospheric conditions, i.e. it is short-lived in the environment. The cyanide used in the project will be subject to a cyanide destruct process and residual cyanide deposited with the process tailings in the Tailings Management Facility will degrade rapidly. This system of use and disposal of cyanide in gold mining is classed as Best Available Techniques by the EU.

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. This report provides an analysis of the water quality of the upper catchments of Roşia Montană and an analysis of the impacts of future mining and collection and treatment operations. A new model INCA-Mine has been developed and the model has been applied to the four upper catchments at Roşia Montană, as well as the complete river system. The model has been used to assess the impacts of the collecting and treating the existing pollution sources as part of the project and shows that significant improvements in water quality in the downstream rivers will be achieved. A key question is the impact of cyanide pollution in the event of an accidental discharge from the tailings dam. This effect has been simulated and it is shown that because of dilution, dispersion and degradation that cyanide concentrations will be below the standards required at the border and in the River Tisza.

As part of the EIA development a series of air quality models were developed to assess air quality during the construction, operations, and closure phases of the project. These studies indicated that concentrations were generally low and fell below the limit values in the populated areas. The initial air dispersion modelling only considered the TMF decant pond, but considered both the summer and winter periods. The breakdown of metal-cyanide complexes to HCN is slow enough in the TMF, that volatilisation from the tailings beach is not considered. The maximum 1-hour averages in air at ground level are less than 400 µg/m³ compared to a commonly applied limit of 5,000 µg/m³. This limit is taken from the American Conference of Governmental Industrial Hygienists (ACGIH). This limit is often considered too conservative as a ceiling limit. The Board of Directors of the International Cyanide Management Institute has announced their intent to evaluate cyanide air limits for the Cyanide Code Implementation Guidance document of the International Cyanide Code

(http://www.cyanidecode.org/whatnew/Revision_Standard.pdf). The modification being evaluated would establish an 11,000 µg/m³-ceiling limit (equivalent to 10 ppm) and maintain the 5,000 µg/m³ (4.7 ppm) limit as an exposure limit for a continuous 8-hour period.

Maximum HCN concentrations volatilised from the Roşia Montană TMF are indicated to be more than an order of magnitude below these limits directly above the source area, and more than two orders of magnitude lower outside of the site boundaries.

Another consideration is the “rainout” of HCN from the air, in which the rain would contain elevated cyanide. HCN uptake in precipitation is a very minor component of HCN fate in the atmosphere (Mudder, et al., 2001). Atmospheric concentrations of HCN are not very soluble in water, and rainout does not effectively reduce atmospheric HCN concentrations (Cicerone and Zellner, 1983). By inference and because of the low predicted atmospheric HCN concentration, concentrations of cyanide in rainfall are unlikely to be measurable above background in and around the Roşia Montană Project area.

For details regarding issues on the cyanide use in technological process, on cyanide balance, and on emissions and cyanide effects on the air quality: EIM Report, Chapter 2, Chapter 4.1 and Chapter 4.2.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	56
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 114674/02.10.2006
RMGC internal unique code	MMGA_1501

Proposal	The barrage height of the tailings management facility does not give any guaranty of stability in time;
Solution	<p>The Tailings Management Facility has been designed to meet all Romanian and international standards for dam safety at each phase of construction. This includes the initial starter dam as well as each subsequent raise to the ultimate dam height.</p> <p>The design crest elevation for the starter dam, each dam raise and the ultimate dam have been established to provide containment for the required tailings storage volume, the operating reclaim pond volume, two probable maximum flood volumes and freeboard. In addition, specific stability analyses have been conducted for each configuration to confirm adequate factors of safety under both static and dynamic loading conditions.</p> <p>Prior to operation, the dam must be certified for operations by the National Commission for Dams Safety (CONSIB). RMGC has utilized the world's foremost experts in these areas to ensure the safety of the project's workers and the surrounding communities.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	749
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 109706/21.08.2006 and No. 75023/21.08.2006
RMGC internal unique code	MMGA_1526

Proposal	the TMF will not be sealed.
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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 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.

Solution

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	749
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 109706/21.08.2006 and No. 75023/21.08.2006
RMGC internal unique code	MMGA_1527

Proposal the EIA Report doesn't make any mention related to the Maintenance Operator for the TMF

The Roşia Montană Project, including operating and maintaining the Tailings Management Facility (TMF), will be managed by the Roşia Montană Gold Corporation. For all specific details please also see Section 5 of Plan F, "The Tailings Facility Management Plan" from the EIA. This document specifies specific requirements for operations and maintenance of the TMF to confirm that it will meet all design requirements and perform as intended. Specific components that will be monitored include:

Parameter	Frequency
Precipitation	Daily
Vibrating Wire Piezometer	Weekly
PM-10	Monthly and Quarterly
Total Tailings Slurry Volume	Continuous
pH of tailings slurry	Continuous
Slurry Concentration (Density)	Continuous
Tailings Line Pressure	Continuous
Dilution Water Flow Rate (to cyclone)	Continuous
Water Reclaim to Mill	Continuous
Tailings Stored Volume (from topographic survey)	Annual
Tailings Chemistry	Weekly
Supernatant Volume in the TMF	Monthly
Supernatant Water Quality	Monthly, Quarterly, and Bi-Annual
Seepage Total Volume	Weekly
Seepage Chemistry	Weekly
Survey Profiles of Dam	Monthly
Visual Inspection of Dam	Daily
Expert Review of TMF	Annual

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	749
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 109706/21.08.2006 and No. 75023/21.08.2006
RMGC internal unique code	MMGA_1533
Proposal	The Questioners identified three ranks of risk: risk of accident while explosions take place, due to the: - lack/poor construction of the sealing of the TMF

The design of the TMF has various redundant system to provide containment and protect the groundwater resources in the Corna Valley. Specifically, 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.

Solution

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.

During TMF construction, a rigorous quality control/quality assurance (QA/QC) program will be performed by the independent engineer and inspected by Romanian construction inspectors to guarantee that the design specifications are implemented accurately in the field.

The redundant design measures and rigorous quality control and quality assurance measures mentioned above will reduce the risk of any adverse impact associated with poor construction methods, if they were to occur.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	749
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 109706/21.08.2006 and No. 75023/21.08.2006
RMGC internal unique code	MMGA_1534
Proposal	<p>Adobe rains which can cause the overflow of the dam or its failure, resulting cyanide discharges; this fact will lead to the pollution of the underground and surface waters, impacting the neighboring country, Hungary.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Solution	<p>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.</p> <p>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.</p> <p>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 Border 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.</p>

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 as Annex 5.1. under the title of the Mureş River Modelling Program together with the full modelling report.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	892
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110082/22.08.2006 and No. 75169/23.08.2006
RMGC internal unique code	MMGA_1551
Proposal	<p>The Questioners ask the MEWM not to issue the environmental permit for the Rosia Montana mining Project. They come up with the following observations related to the Project:</p> <ul style="list-style-type: none"> - the TMF is located right upstream Abrud town, and downstream the TMF there are numerous small towns such as Carpenis Campeni, Bistra, etc.; of the TMF fails, the consequences could be catastrophic.
Solution	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>For a more detailed technical analysis, please refer to Chapter 7, Section 6.4.3.1, "TMF Potential Failure Scenarios" of the EIA.</p>

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	892
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110082/22.08.2006 and No. 75169/23.08.2006
RMGC internal unique code	MMGA_1554
Proposal	- the proposed TMF is not going to be sealed; this breaches the Directive regarding the underground waters' protection.
Solution	<p>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.</p> <p>The TMF is composed of a series of individual components including:</p> <ul style="list-style-type: none"> • 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. <p>All of these components are integral parts of the facility and necessary for the facility to perform as designed.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

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.

Domain	TMF
MMDD's item no. for the question which includes the observation identified by the RMGC internal code	893
MMDD's identification no. for the question which includes the observation identified by the RMGC internal code	No. 110081/22.08.2006 and No. 75170/23.08.2006
RMGC internal unique code	MMGA_1561
Proposal	- The tremendously waste deposit of cyanide content is located right above Abrud town; of the dam fails, it will result an ecological catastrophe.

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.

Solution

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.