

Explanatory note on Chapter 4.4 - Potential impact, soil

Table of Contents:

1. Review of impact of the change in the relevant legal framework on the Project and/or EIA Report	49
2. Updates on Chapter 4.4 – “Soil” – Soil Baseline Report	49
3. Updates on Chapter 4.4 - “Soil”	49
4. Updates on Chapter 4.4 “Soil”, Mine Rehabilitation and Closure Management Plan	49

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Detailed Contents:

1. Review of impact of the change in the relevant legal framework on the Project and/or EIA Report

On preparing chapter 4.4 Soil, both the internal regulations in force at the time of preparation as well as the relevant community regulations were taken into consideration. Thus, the Project is reviewed at an advanced level against the Romanian legislation in force at the time of preparation of chapter 4.4.

The main national law applicable to the soil quality assessment and which constituted legal framework associated with chapter 4.4., namely Order No. 756/1997¹ has not been changed. The only change of this Order which was adopted referred exclusively to certain air quality aspects. Consequently, the mentioned amendment is not of a nature to bring changes to the Project.

It should be noted that two laws setting forth the soil and subsoil areas were adopted in 2007, namely:

- GD No. 1408/2007² which establishes the criteria regarding the investigation and assessment of the pollution of the soil and subsoil in order to identify the damage caused to the same and the responsibilities regarding the rehabilitation of the geological environment.
- GD No. 1043/2007³ regarding the rehabilitation of the areas where the soil, subsoil and terrestrial ecosystems were affected, establishing the criteria applicable to the cleaning, remediation and / or environmental restoration of the areas where the soil, subsoil and terrestrial ecosystems were affected.

To apply new laws it is necessary to prepare and have approved by minister orders on one hand the procedures and application competences and on the other hand the preparation guidelines for the different types of technical documents mentioned in the two Government Decisions.

In the context of this review the same are not of a nature to affect the conclusions on the Project. Thus, from a technical standpoint, this chapter remains unaffected by the legislative changes that occurred during 2006 – 2010.

2. Updates on Chapter 4.4 – “Soil” – Soil Baseline Report

This report remains unaffected, both from a technical standpoint as well as in terms of the legislative changes that occurred during 2006 – 2010. A detailed soil monitoring plan for all the Project stages (i.e. construction, operation, closure and post-closure) was developed in 2007 and is presented in Appendix NE_Cap 4.4_01. Results of monitoring completed after 2006 are also presented in this Appendix.

3. Updates on Chapter 4.4 - “Soil”

From a technical standpoint, this chapter remains unaffected by the legislative changes that occurred during 2006 – 2010.

4. Updates on Chapter 4.4 “Soil”, Mine Rehabilitation and Closure Management Plan

Sections 4.1 – 4.13 of this Plan do not require updating since there were no new approaches on this subject identified during 2006 – 2010 and there have been no changes in the legislation.

4.14. Environmental financial security for RMP

During 2007 – 2010 all data regarding the costs for the Rosia Montana mine closure and rehabilitation were updated. The USD 76 mil figure stated in the Environmental Impact Assessment (EIA) was based on the basic

¹ Ministry of Waters, Forestry and Environmental Protection No. 756/1997 for the approval of the Rule on the environmental assessment pollution, published in the Official Gazette of Romania, Section I, No. 303 bis of 06.11.997.

² Government Decision No. 1408/2007 on the investigation and assessment of soil and subsoil pollution published in the Official Gazette, Part I, No. 802 of 23 November 2007.

³ Government Decision No. 1403/2007 on the rehabilitation of the areas where the soil, subsoil and ecosystems were affected, published in the Official Gazette, Part I, No. 804 of 26 November 2007.

engineering and unit price applicable at the end of 2005. As from early 2006 until mid 2008 the costs for machinery, materials, consumables and goods have gone up. This required that the company review its Project cost estimation including the operating costs, as well as the initial, support and closure costs. Based on the above elements, the updated closure cost was released in March 2009 to be USD 128 mil. Details on these costs are provided in Appendix *NE_Cap 2_01*.

The Environmental Rehabilitation Plan and Closure Basic Engineering - Rosia Montana Mine, prepared by SC Ipromin SA and submitted with the NAMR in February 2010 detail the updated closure costs for the Rosia Montana Mine. Extracts of these reports, regarding the updated rehabilitation costs, may be presented to the TRC (Technical Review Commission) with NAMR's approval. The total rehabilitation costs for the Rosia Montana Mine amount to USD 127,614,647.

We present below a summary table and a detailed table regarding the closure and post-closure monitoring costs as well as the environmental rehabilitation costs for the Rosia Montana Mine.

SUMMARY TABLE INCLUDING CLOSURE AND POST-CLOSURE MONITORING COSTS OF THE ROSIA MONTANA MINE

EXPENSE	VALUE [USD]
YEAR 5-9	3,551,255
YEAR 10-13	12,732,130
YEAR 14-16	13,773,116
YEAR 17-18	62,495,868
YEAR 19-21	12,556,719
YEAR 22-26	18,492,000
YEAR 27	4,013,559
TOTAL COSTS	127,614,647

SUMMARY TABLE INCLUDING CLOSURE AND REHABILITATION COSTS FOR THE ROSIA MONTANA MINE, ALBA COUNTY

Item	ANTICIPATED WORKS	TOTAL COST	
		[LEI]	[USD]
1.	Environmental rehabilitation – external Carnic dump		
1.1	Development works prior to rehabilitation	60.293.106	20.097.702
1.2	Rehabilitation works	8,999,323	2,999,774
	Total closure and rehabilitation costs for external Carnic dump	69,292,429	23,097,476
2.	Environmental rehabilitation – internal Carnic dump		
2.1	Development works prior to rehabilitation	12,528,170	4,176,056
2.2	Rehabilitation works	1,306,566	435,522
	Total closure and rehabilitation costs for internal Carnic dump	13,834,737	4,611,578
3.	Environmental rehabilitation – internal Orlea dump		
3.1	Development works prior to rehabilitation	17,013,691	5,671,230
3.2	Rehabilitation works	1,721,746	573,915
	Total closure and rehabilitation costs for internal Orlea dump	18,735,436	6,245,145
4.	Environmental rehabilitation – internal Jig dump		
4.1	Development works prior to rehabilitation	8,877,224	2,959,074
4.2	Rehabilitation works	1,196,476	398,825
	Total closure and rehabilitation costs for internal Jig dump	10,073,701	3,357,900
5.	Environmental rehabilitation – Cetate pit		

Item	ANTICIPATED WORKS	TOTAL COST	
		[LEI]	[USD]
5.1	Development works prior to rehabilitation	2,971,073	990,357
5.2	Rehabilitation works	2,354,494	784,831
Total closure and rehabilitation costs for Cetate pit		5,325,566	1,775,188
6.Environmental rehabilitation – Jig pit			
6.1	Development works prior to rehabilitation	121,838	40,612
6.2	Rehabilitation works	1,177,462	392,487
Total closure and rehabilitation costs for Jig pit		1,299,300	433,099
7.Environmental rehabilitation – Orlea pit			
7.1	Development works prior to rehabilitation	127,071	42,356
7.2	Rehabilitation works	1,570,523	523,507
Total closure and rehabilitation costs for Orlea pit		1,697,594	565,864
8.Environmental rehabilitation – Carnic pit			
8.1	Development works prior to rehabilitation	205,351	68,450
8.2	Rehabilitation works	3,139,325	1,046,441
Total closure and rehabilitation costs for Carnic pit		3,344,676	1,114,891
9.Environmental rehabilitation – low-grade ore stockpile			
9.1	Development works prior to rehabilitation	70,832	23,610
9.2	Rehabilitation works	1,887,889	629,296
Total closure and rehabilitation costs for low-grade ore stockpile		1,958,721	652,906
10.Environmental rehabilitation – topsoil stockpile			
10.1	Development works prior to rehabilitation	45,430	15,143
10.2	Rehabilitation works	1,763,365	587,788
Total closure and rehabilitation costs for topsoil stockpile		1,808,795	602,931
11.Environmental rehabilitation – Corna TMF			
11.1	Development works prior to rehabilitation	115,275,200	38,425,066
11.2	Rehabilitation works	29,325,160	9,775,053
Total closure and rehabilitation costs for Corna TMF		144,600,360	48,200,120
12.Environmental rehabilitation – secondary containment dam and pond			
12.1	Development works prior to rehabilitation	1,543,278	514,425
12.2	Rehabilitation works	113,168	37,722
Total closure and rehabilitation costs for secondary containment dam and pond		1,656,446	552,148
13.Environmental rehabilitation – processing plant			
13.1	Development works prior to rehabilitation	15,916,689	5,305,563
13.2	Rehabilitation works	4,742,947	1,580,982
Total closure and rehabilitation costs for processing plant		20,659,636	6,886,545
14.Closure of underground mine workings			
Total underground mine workings closure		333,774	111,258
Total closure and development costs for ROSIA MONTANA MINE		235,322,726	78,440,909
Total environmental rehabilitation costs for ROSIA MONTANA MINE		59,298,445	19,766,148
Total environmental costs for ROSIA MONTANA MINE		294,621,171	98,207,057
15.Post-Closure costs			
15.1	Wastewater collection and treatment	81,465,000	27,155,000
15.2	Monitoring of environmental factors and rehabilitation works carried out during closure	4,800,000	1,600,000
15.3	Administration	1,950,000	650,000

Item	ANTICIPATED WORKS	TOTAL COST	
		[LEI]	[USD]
	Total post-closure costs	88,215,000	29,405,000
	16. Miscellaneous		
16.1	Engineering and technical assistance	2,100,000	700,000
16.2	Organisation	900,000	300,000
16.3	Miscellaneous and contingency	38,717,670	12,905,890
	Total miscellaneous costs	41,717,670	13,905,890
	17. Sale of assets upon mine closure		
17.1	Mobile machinery and equipment	25,500,000	8,500,000
17.2	Fixed machinery and equipment	13,809,900	4,603,300
17.3	Scrap metal	2,400,000	800,000
	Total income from sale of assets	41,709,900	13,903,300
	Total environmental rehabilitation and monitoring costs	382,843,941	127,614,647

The increase of the total mine rehabilitation and closure costs occurred as from the EIA preparation to date are not of a nature to change in any way the contents of Chapter 4.4. - “Soil”, Mine Rehabilitation and Closure Management Plan.