



R E P U B L I C O F B U L G A R I A

MINISTRY OF HEALTHCARE

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phone: 9301273, fax: 9811833

To:

MR. ADRIAN GOLDSTONE

Executive Director,

BALKAN MINERAL AND MINING EAD

26 Bacho Kiro St., floor 3 SOFIA

To Your Letter Ref. БММ/БММ-иЗХ/out 0070/20.07.2010

DEAR MR. GOLDSTONE,

In response to your submission under the above-mentioned letter requesting our expert statement on the Terms of Reference of the Environment Impact Statement for the *Krumovgrad Gold Project*, please be advised as follows:

The EIS Terms of Reference document considers different sections in accordance with the legal requirements including sections that will analyse and assess the health and hygiene aspects of the environment and the risk to human health (both site personnel and the population of the nearest towns and villages). Whilst discussing these matters, detailed and comprehensive information must be provided about:

1. Location and precise distances (shown on suitable maps) to the nearest residential areas and other sites and zones that must be subject to health protection from the potential project sources of pollutants: the open pit, the stockpiles and the Integrated Mine Waste Facility, the process plant (concentrator), the crusher plant, process and domestic wastewater treatment plants. The distances so measured/estimated should be compared to the statutory protective distances for the respective sites and operations under Regulations 7/1992 on the Hygienic Requirements for Health Protection of Urban Environment (last amendment 1999). The most recent resident population estimates about each city/town, village and/or hamlet must also be provided.

2. Background assessment of the local environment (air, surface and ground waters, soils).

3. Identification of the environmental and work-related risks to human health associated with the project construction and operation.

4. The degree of expected negative impacts on the environmental media and factors based on mathematical modelling, analysis and forecasting including:

- modelling of the dispersion of the expected pollutants from non-fugitive (point) sources and fugitive (area) sources as part of the assessment of the potential impact on **air**

quality; forecasting of not only the emission concentrations but also the **imission** concentrations of air pollutants at the nearest housings;

- paying special attention to the potential negative impacts on the water quality of the drinking water abstractions and ensuring site drinking water supply whose quality meets the standards under Regulation 9/16.03.2001 on the Drinking and Household Water Quality as part of the assessment of the potential impacts on the surface and ground waters;

- estimation of the expected noise levels from the operation of the open pit and other project facilities and the impulse noise from blasting at the nearest recipients as part of the assessment of the expected **environmental noise**;

- estimation of the distances at which flyrock is thrown based on the type of explosives and the blasting method as part of the assessment of the mining method. Flyrock must not extend more than one half the distance to the closest residential area or other facilities and sites that are subject to health protection.

5. The transport routes to the project site specifying the towns/villages/hamlets they pass through or the nearest distance to them.

Estimation of the total number of affected population, the sites and zones that must be subject to health protection depending on the expected area of impact based on the environmental impact forecasts. Characterisation and ranking of the risk factors according to their impact on the human health and comparison to the applicable hygiene standards and requirements pertaining to both workplaces and affected *residential areas*.

Assessment of the potential combined, complex, cumulative and remote impact of the risk factors on both personnel and affected population. Scheduling of the mining operations on the remaining prospects of the Khan Krum deposit and what cumulative effects are possible when two or more prospects are mined on the same day.

The EIS should analyse the health and demographic status of the population of the nearest towns, villages and hamlets based on the most recent demographic data (birth rate, death rate, natural growth, infant mortality, etc.) and morbidity data (level and structure). The data must be compared to the district-wide and nation-wide data. A forecast of the potential health and demographic impact from the project implementation must be made.

Based on the information on the matters discussed above, an assessment of the health risk should be undertaken, which should propose measures for health protection and risk management.

Sincerely,

Dr. Tencho Tennev,

Chef State Health Inspector