REPUBLIC OF BULGARIA

MINISTRY OF ENVIRONMENT AND WATER

99-00-101
04-00-1311
27 November 2023, Sofia

Subject: *updated EIA report for the project „Construction of a hall building, concrete drainage basin, concrete platforms, fencing, lighting system, execution of boreholes and internal water supply and sewerage, deployment of a wastewater pre-treatment plant, deployment of a hospital waste incinerator with associated installations" with the contracting authority SC FRIENDLY WASTE ROMANIA SRL in Romania*

DEAR MINISTER FECHET,

This letter is to acknowledge receipt of your letter Reg. No. DGEICPSC/108306 dated 16.10.2023, submitting an updated EIA report together with a response to the comments made in letter Reg. No. 99-00-101, 04-00-1311 dated 05.09.2023 of the Ministry of Environment and Water of the Republic of Bulgaria for the project "Construction of a building hall, concrete drained basin, concrete platforms, fencing, lighting system, execution of boreholes and internal water supply and sewerage, deployment of a wastewater pre-treatment plant, deployment of a hospital waste incinerator with associated installations" on the territory of Romania.

After a detailed examination of the revised version of the report, as well as based on the opinions submitted by the interested institutions and the public access to the documentation provided, I hereby express the following opinion:

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The purpose of the documentation in the EIA Report in the generally accepted EIA practice is to provide sufficient information to be used in the decision making by the competent authority. An important point in the development of the assessment is the equivalent description, analysis and comparison of the alternatives studied by the contactor, which minimise the environmental impact of the project proposal.

Following the release of the updated Report for public access, a number of comments have again been received from the Bulgarian public, which are attached to this letter.

The comments are accompanied by a petition from 8000 citizens and residents of the city of Ruse, with a clear and strongly expressed position against the construction of the investment proposal.

As can be seen from the questions and comments, the main concern of the public of Ruse and the competent authorities in the field of environmental protection is the potential pollution of the ambient air.

As the enclosed statements and the petition from citizens contain personal data, such as personal identification numbers, signatures and telephone numbers, we emphasize that the provisions of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC should be complied with and those data must be deleted when presented to third parties or public access.

I. General comments on the revised Environmental Impact Assessment Report:

1. The EIA report lacks a comparison and assessment of proposed alternative solutions in terms of the chosen technology, location, size/scale of the investment, which, based on their comparison, would confirm and establish the most sustainable of them, with the least environmental impact. The claims of using the facility with the latest world technology does not prove the appropriateness, efficiency and environmental friendliness of the incineration process, as well as the low level of harmful emissions into atmosphere to the required extent. The above alternatives for the implementation of the investment proposal, which are based solely on economic considerations, deprive the competent authority and the public of the right of access to the specific information required, which is also in breach of the principles of the Aarhus Convention.

2. The issues related to the release of odours due to the implementation of the project, the likely sources of odour dispersion both on and off site with the potential to cause olfactory discomfort and disrupt the quality of life of the population are not considered in sufficient depth. Issues such as which are the possible odorous substances which are the conditions conducive to their dispersion/non-dispersion, including in emergency situations, related to the operation of the installation and the temporary storage of waste, as well as a whole in the

limits of the site are also not included with the necessary details., In view of the likelihood of the presence of potential sources of emissions with a characteristic unpleasant odour, it is necessary to consider and analyse the possible directions and pathways of their dispersion, and at this stage to develop and propose a plan of additional measures to ensure that the situations arising are resolved as soon as possible to prevent the discomfort created. The clarifications made in the EIA report regarding the possible presence of odours and the need for the employer to follow certain procedures are of a wishful rather than a mandatory nature.

3. With regard to the Odour Management Plan, the received response that the issues of possible spread of unpleasant odours, health effects and mitigation measures should not be addressed in detail in the EIA, but at a later stage, cannot be accepted, nor the reason put forward that "...in accordance with the legal provisions, the Odour Management Plan is prepared at the beginning of the activity, in the environmental permit procedure.

4. The actions to be taken in the event of an emergency that may occur in the event of a failure of the installation are described, but they do not address the necessary set of preventive measures to ensure compliance with safety requirements and reduce the risk of accidents. Consideration should also be given to the fact that hazardous chemicals necessary for the operation of the plant will be stored on site on a permanent basis and in significant quantities.

5. The EIA report does not analyse the potential emergency situations that may occur, including the potential environmental consequences. Measures that would prevent severe environmental pollution are not proposed, nor is a plan for their implementation (in the design/construction/operation phases).

6. Regarding the storage of hazardous chemical substances and mixtures, the EIA report states that in order to provide the fuel necessary for the operation of the incinerator, propane butane storage tanks will be built - 4 tanks with a capacity of 5000 l each. Diesel fuel will also be used at the site to refuel the forklift trucks without specifying the storage conditions and the method of refuelling the forklift trucks. Propane-butane, the hazardous waste mentioned and diesel fall under Part 1 and Part 2 of Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC. The contracting entity has not provided documents to demonstrate compliance with the requirements in the above-mentioned legislative act, in view of which their alleged compliance remains questionable.

II. Remarks on components and environmental factors

Remarks on the "waste" factor:

1. The EIA report does not provide sufficiently clear information on the proposed technology, as a result of which it cannot be confirmed that the specific installation has been compared with the requirements for the use of best available techniques (BAT) in accordance with Commission Implementing Decision (EU) 2019/2010 of 12 November 2019 on the

establishment of conclusions on the best available techniques (BAT) for the incineration of waste pursuant to Directive 2010/75/EU.

2. Mechanisms for introducing and implementing procedures that improve waste stream management are not specified:

- Waste characterisation and pre-acceptance procedures:

- *It is foreseen to characterise waste suitable for incineration only by the documents submitted without requiring sampling, inspection and analysis of the waste before acceptance for incineration;*

- for waste acceptance:

- *It is not clear when waste is accepted at the site that turns out to be unsuitable for incineration, what will be the subsequent measures and actions for their management.*
- *There is a lack of clarity regarding the acceptance of waste from other countries, which poses the risk of receiving incorrect information on the type of waste, its suitability for incineration, the integrity of packaging (practice shows a number of cases of acceptance of waste with false content in the accompanying documents, especially when importing or introducing waste from other countries).*
- *It is not clear whether the technical facility is designed only for these types of waste. In this respect, is it not stated explicitly whether it is envisaged that other types of hazardous and/or non-hazardous waste intended for incineration can be added to the plant in the future, and whether the plant will be able to be loaded according to its designed capacity.*
- *The operators and landfills to which the ash generated in the incinerator will be transported are not indicated (is there a prior study and/or agreement in principle from such operator). In this respect, in order to ensure the safety of the operations described, the EIA report should contain the minimum necessary information, such as the method by which the ash generated in the incineration process will be distinguished (classified in the EIA with two different hazardous/non-hazardous identification codes), the transport technology, the removal routes, the risks of accidents, including spillage of hazardous waste. These circumstances make it necessary at this stage for the Employer to undertake and propose an indicative programme/schedule/plan for the incineration of the waste input into the production process by type and quantity.*

3. Actions with regard to the need to monitor waste deliveries as part of waste acceptance procedures in accordance with BAT are not described, including checking for radioactivity of waste - a requirement for hazardous and hospital waste. The information reports 'only where there is a need', which at the very least begs the question as to which circumstances determine the need to check the radioactivity of the waste.

4. On receipt of unusable medicines and chemicals (wastes coded 18 01 06; 18 01 08*; 18 01 05; 18 01 07; 18 01 09; 18 02 06 and 18 02 08), there is a likelihood of generation of hazardous packaging waste, based on the stipulation that some waste will be unpacked as necessary, which raises the question of whether waste coded 15 01 10* - packaging containing residues of hazardous substances or contaminated with hazardous substances will be generated.*

5. No maximum instantaneous capacity (the physical ability of the site to store a total amount of waste at a given point in time) for on-site waste storage is indicated, which justifies the need for a description of measures to avoid waste accumulation, given that the site will also receive waste from Group 02 - Waste from agriculture (fruit-growing, floristry, and gardening), aquaculture production, forestry, hunting and fishing, food production and processing. According to BAT, the requirement is to reduce the environmental risks associated with the reception, treatment and storage of waste.

6. In accordance with the provisions of Article 50(3) of Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) - the Directive, each combustion chamber of the waste incineration plant shall be equipped with at least one additional burner. Pursuant to Article 50(4)(c) of the Directive, waste incineration plants and waste co-incineration plants shall use an automatic system that prevents the waste feed whenever continuous measurements show that any of the emission limit values are exceeded due to a malfunction or failure of the waste gas treatment systems.

Remarks on the "air" component:

1. Dioxin pollutant: The information submitted repeatedly states that an exhaust gas cooling system will be installed in the absence of any mention of the specific characteristics of the system, its operating principle, etc. It is necessary to meet certain technical requirements: a suitably designed device to reduce the flue gas temperature downstream of the secondary combustion chamber must be installed. This device must reduce the temperature of the gas leaving the secondary chamber from 1100 °C to 200 °C in the shortest possible time. Rapid cooling of the flue gas minimises new dioxin synthesis.

2. NOx pollutant: The data provided provides information on the parameters of the burners (low NOx) that are used to reduce NOx.

3. The emission standards are predicted not to be violated. The information describes that the burners will only be used for 10 hours per day where low NOx emissions are expected. Omitted is consideration of the fact that NOx is also formed from the combustion of waste during the burners and in the self-sustaining combustion processes. The Waste

Incineration Directive introduces a limit of 200 mg/m3 for NOx emissions. Therefore, it should be specified what combustion process controls should be applied in order to keep the incineration plant within the set emission limit value (ELV), as no nitrogen oxides treatment plant is foreseen.

4. Hydrogen chloride pollutant: The most significant acid gas in terms of difficulty of control within permissible limits is hydrogen chloride (HCl). The half-hourly average for HCl is 60 mg/m3; therefore, peaks or spikes of HCl for short periods of time that are significantly above this level may result in a violation of the ELV. Large spikes in HCl are common in municipal solid waste incinerators, hospital waste incinerators, and hazardous waste incinerators. The best available techniques currently used to minimize reagent use are the injection of a variable amount of an alkaline reagent in response to the change in HCl concentration in the flue gas. However, to be effective, the reaction time must be almost instantaneous. Practice has shown that this proves extremely difficult as the sampling time is too long to update the reagent amount quickly enough. Due to this fact, the dry and semi-dry acid gas reduction systems that are commonly used need to be continuously over-dosed with an alkaline reagent to compensate for occasional peak levels of HCl from waste with high chlorine content (e.g. plastics). In relation to the above, it is also necessary to consider an alternative with regard to the treatment method used in order to demonstrate compliance with the set HCl standards, even at peak emissions.

5. In the EIA report, Table 59 and Table 60 indicate a smokestack outlet gas temperature of 190°C. According to the technical characteristics and the principle of action, sodium bicarbonate is most effective in terms of removing acid gases at elevated temperatures of around 160°C. At such elevated temperatures, however, activated carbon (injected to remove mercury and dioxins) becomes less effective. In relation to the above, careful consideration and critical analysis of the injection devices, and the relevant temperature at which subsequent dust extraction is undertaken, is necessary as this is where the majority of the reaction between the acid gases and the injected reagent takes place.

6. The short distance from the site where the incinerator is proposed to be built to the city of Ruse (less than 4 km), as well as the prevailing wind direction - north/northeast (23.4% of the year), represent a serious prerequisite for the occurrence of problems related to emissions of intensely odorous substances from the storage processes of non-hazardous, medical (non-hazardous and hazardous) and animal waste.

7. In order to account for the most significant contribution of the installation to the ambient air quality on the territory of the Republic of Bulgaria and in particular in the city of Ruse, a mathematical modelling of the dispersion and the expected concentrations of pollutants in the ground layer of the atmosphere must be carried out, using as input data a mass flow calculated on the basis of the emission limits for pollutants set for the installation and the maximum permitted flow rate. The results (concentrations) of this modelling should ensure that, at these and at lower levels of smokestack emissions, emissions of harmful substances will not lead to exceedances of the set standards for the protection of human health. In this case, concentrations of pollutants based on emission factors and the passport

data (technical book) of the incinerator were used to calculate the mass flow, which is a prerequisite for possible underestimation of the impact of the installation on air quality in cases where it operates at higher but compliant emission levels.

8. There are no methodologies used for the assessment of noise emissions to the environment and no information on how noise emissions to the environment are controlled during normal operation of the installation.

9. In the future EIA decision for the operation of the installation, conditions (based on the requirements of BAT) should be set to ensure compliance with the emission limits for the harmful substances emitted from the incinerator, as well as the requirements regarding the monitoring of the same emissions, in full compliance with the European legislation for waste incineration plants - Directive 2010/75/EU on industrial emissions, Section IV. It is also necessary to set out in the EIA decision specific requirements based on BAT to prevent the spread of intensely odorous substances outside the site boundary, including the storage of animal by-products as well as other perishable waste that could be a source of intensely odorous substances in cold rooms for no more than 24 hours, and the preparation of an Odour Management Plan that includes the components described as BAT on page 264 of the revised report.

III. Regarding the impact of the investment proposal (IP) on humans and the possible health risk of its implementation:

1. *The updated report confirms the information that the incinerator will not only accept hospital waste, as noted in the name of (IP), but will also accept animal waste, waste from the food industry, and other waste.*

2. The presented modelling of air emissions does not take into account the fact that the IP will handle a variety of origin and composition of incinerated waste, which is able to significantly affect the qualitative composition of emissions. It is not clear what type of waste or mixture of waste is being incinerated in the mathematical emission modelling.

3. *No modelling is presented for the spread of emissions under conditions of cumulative effect with other sources of organised emissions. The IP is in an industrial area and is likely to have a cumulative emission effect with other companies in the industrial area of the town of Giurgiu and from the industrial zones of Ruse.*

4. I would like to draw attention that the IP will represent a long-term and intensive source of organised emissions of air pollutants. The EIA report does not provide information on the health and environmental consequences of possible accidents and failures of the rotary combustion chamber and the gas filtration plant.

5. On page 28 of the EIA, it is declared that the installation will use a "dry absorbing system" fuel gas purification system, by injecting Solvay-Bicar dry reagent (NaHCO3 mixed with activated carbon) into the outgoing gas flow, considering which in table No. 113100 "Techniques for reducing organized air emissions of HCl, HF and SO2 from waste

incineration" on page 243 and in table 118103 on page 248 of the EIA report (in the last column of the line "Injection of dry sorbent"), the text "Not applicable" should be corrected to "It is foreseen in the investment proposal".

6. When assessing impacts, a distinction should be made between ambient air quality (AAQ), respectively the impact of the IP on AQ, and an assessment of the impact of the emissions on human health. The assessment of the impact on human health relates to the characteristics of the various hazardous substances emitted and their modes of action on the human body.

The measures set out in the EIA report for avoiding, preventing and reducing negative impacts in the event of accidents are derived from regulatory requirements relevant to all projects and are of a general, declarative nature. The measures presented in the report do not include any measures to ensure the continuous, correct and accident-free operation of the treatment facilities of the proposed flue gas cleaning system. It is essential that all treatment plants achieve compliance with the emission limit values for the entire period of their operation. These values are guaranteed by the contractor to be achieved with the installed treatment facilities and have been the basis for mathematical modelling and computer modelling of the air emissions distribution. Taking into account the nature of the production activities, it can be summarised that the most serious potential impacts, including from emergency situations and abnormal operating regimes, cover the environmental components. In the described measures, there is no provision for protecting the purity of the ambient air, but only declare that the concentrations of pollutants in the atmosphere, as determined by mathematical dispersion modelling, are significantly below the limit values and that no measures are necessary to be undertaken.

This Report does not comprehensively address all air pollutants on both sides of the Danube river, which makes it incomplete and does not provide reliable data on the overall magnitude and coefficient of transboundary pollution. Taking into account that the Ruse city area is home to industries mainly in the chemical, metalworking, oil refining, automotive and ceramics industries, the conclusions drawn are unsound and unacceptable.

All the conclusions in the Report are rather declarative and not conclusive, as there is a possibility of mixing of pollutants in the atmosphere and together with the high humidity (typical for the Danube area), there is a risk of formation of new pollutants, their retention in the atmospheric layer near the ground and the risk of exposure of the population of the city of Ruse. The analyses and conclusions drawn do not conclusively prove the absence of a health risk for the population of the town of Ruse from the implementation of the investment proposal, nor they propose effective measures to reduce the negative impact. The basic principle in the protection of public health is the precautionary principle of action, namely the prevention of harmful impacts.

In view of the above, it can be concluded that there is a potential for the operation of the incinerator to directly or indirectly affect public health and the environment and, in this regard the Republic of Bulgaria will issue a final opinion on the project after submission of the necessary documentation, supplemented in accordance with the expressed findings and comments.

In conclusion and considering all of the above, the Republic of Bulgaria expresses a negative opinion on the submitted revised report due to the lack of an adequate health risk assessment, the insufficient quantitative and qualitative measures to prevent the negative impact of the implementation of the IP, the lack of cumulative effect assessment, considering that the protection of the health of citizens is the most important and national priority. It is essential to monitor possible transboundary impacts at each stage of the project implementation - from construction to the implementation of the activity, including the lawful operation of the installation in accordance with its technical parameters and the provisions of the investment proposal.

Based on all of the above, we inform you that the information in the EIA Report should be revised and supplemented, in accordance with the described remarks, and presented again for sending to the competent authorities and the interested public.

Given the sensitivity of the investment proposal, I insist that a public discussion of the investment proposal be organized on the territory of the Republic of Bulgaria as well.

Please accept, Honourable Minister, my highest consideration and readiness for successful future cooperation.

Appendix: *According to the text - due to the large size, a link will be provided.*

Yours sincerely,

Julian Popov
Minister of Environment and Water

"За министър:
Заместник-министър: Петър Димитров
Заповед за заместване РД-931/21.11.2023г.