Attachment 19

Comments table of statements, opinions based on MEW quality assessment of EIA R and CAR (MEW letter № OVOS-277/13.12.2012 and MEW letter № OVOS-277/28.05.2013)

MEW letter № OVOS-277/13.12.2012 concerning– Evaluation of the quality of EIA report and of a reworked Compatibility Assessment Report (CAR) for investment proposal "Facility for Treatment and Conditioning of Radioactive Waste (RAW) with high volume reduction factor (HVRF) at Kozloduy

I. As regards EIA Report	
Expressed statements, recommendations, comments, etc.	**Accepted/ Not accepted**
After reviewing of the presented information, according to art. 14, par. 4 of the Regulation on the terms and procedure of EIA implementation (The EIA Regulation, adopted with CMD 59/2003, last amended SG 94/2012) the quality assessment of the above mentioned EIAR **is negative**, as the presented information is incomplete and insufficient for taking a decision, including the received written reasoned negative statement by the Ministry of Health. In regard to the omissions identified during the review of the documentation and based on art. 15, par. 2 from the mentioned Regulation, we return the Report for revision and supplementing, considering the following:	Accepted, the current EIAR is completely revised, the omissions have been removed and additional information is presented supporting the conclusions of the EIA experts.

The Water component The description and the analysis of the components of the environment in which the investment proposal is going to be implemented should be prepared in the EIA Report in accordance with the information for the water bodies in the Plan for management of river basins (PMRB) in the Danube region, as follows: • The investment proposal, according to the information presented, falls in a surface water body from the Danube valley, which is highly modified, with the name of Danube RWB01 and code BG1DU000R001. The ecological potential of the water body is moderate. The chemical condition of the water body is bad. The specific ecologic goal for a surface water body is the "Avoidance of deterioration of the ecological potential and achieving a good one until 2021. Avoidance of the deterioration of the chemical condition and achieving a good one until 2027". • The investment proposal falls in the region of distribution of the underground water body Pore Waters in the Quaternary - Kozloduy lowlands, with the following features: code BG1G0000QAL005 and area of 39,336 km^2. The chemical condition of the underground water body is assessed as good state, whereas the quantitative condition is assessed as bad state. The specific ecologic goal of the underground water body is the "Preservation of the good chemical condition of the water body and achieving good quantitative condition". • The underground water body is defined as potable water protection area in line with article 119a, para 1, i.1 of the Waters Act (WA), with code BG1DGW0000Qal005, whereas the state of the area is bad. The specific ecologic goal for the potable waters protection areas is: "Reducing the necessity of water purification before the utilization of water and providing the designed amount in the water abstraction facilities until 2015. The main goal of the PMRB is achieving, maintaining and improving the good state of the waters in the Danube Region for Basin Management until 2015. The measures envisaged in the EIA Report for avoiding and reducing the significant adverse effects over the environment (waters) during the design, implementation and operation of the investment proposal should necessarily consider the goals for protection of water bodies and the areas for their protection, in the scope of which the proposal is located. In order to achieve the ecologic goals set out in the PMRB the following programmes of measures have	The additional information is accepted, in accordance with the information on the water bodies in PMRB in the Danube region it is included in item 3.2.2. of EIAR. Accepted, detailed in chapter 3, sction 3 Accepted, the IP is not within a water protection area under art.119 (1), p.5 of the WA. The measures included in the River Basin Management Plan for Danube region for good environmental status till 2015 do not provide prohibition of the realisation or operation of the investment proposal. Detailed analysis is made in Chapter 4, section 4.1.2.4 and the relevant measures are listed in chapter 6.

been established: for avoiding and reducing the anthropogenic stress (point and diffuse pollution sources) and the impact on the water resources; measures on monitoring and control, including measures for the water protection areas. In the PMRB of the Danube River Basin the following measures are defined which concern the implementation of the investment proposal: • Program 7.1.3. Measures for protection of the water for potable and household water supply, including the measures for preservation of its quality in view of reducing the degree of purification for provision of water of potable quality: BG1MB022 - Control on the implementation of the conditions from the decisions on the EIA, the permits on the Waters Act and EPA, the instructions for determination of Sanitary and Security Area (SSA) and other regulatory documents; BG1MB011 - Prohibition on the direct outlet of water which contains hazardous and adverse substances in the areas for protection of underground waters; BG1MB018 - Pursuance of the regulation for environmental impact assessment in accordance with the EPA of the investment proposals for extraction of ores and minerals, overground and underground construction and other activities and technologies for which there is a probability to worsen the quantity and/or the quality of the potable waters.	Accepted, addressed in detail in Chapter 4, section 4.1.2.4 and the relevant measures are listed in chapter 6.
• Program 7.1.4. Measures to regulate the abstraction of fresh ground waters and underground waters. Regulating the artificial feeding of the underground waters: BG1MB039 - Control over the observance of the conditions in the water abstraction permit; BG1MS014 - Optimization of the water abstraction for industrial needs and by introducing turnover cycles.	Accepted, addressed in detail in Chapter 4, section 4.1.2.4 and the relevant measures are listed in chapter 6.
• Programme 7.1.5.1. Measures to regulate the emissions by defining prohibitions for introducing contaminators from contamination point sources or requirements for issuing of permits and their periodic review and update for the underground waters: BG1MS016 - Prohibition on the disposal of priority substances as well as other activities on the surface and in the underground water unit which may lead to indirect inlet of priority substances in the underground waters; BG1MS017 - Prohibition on the use of materials which contain priority substances in the building of constructions, engineering and construction facilities and others in which there is or it is possible to have a contact with the underground waters and due to which the underground waters could be contaminated.	Accepted, addressed in detail in Chapter 4, section 4.1.2.4 and the relevant measures
• Program 7.1.5.2. Measures to regulate the emissions by defining prohibitions for introducing	

contaminators from contamination point sources or requirements for issuing of permits and their periodic review and update for the underground waters: BG1MB076 - Control over the implementation of the conditions of the permit for the discharge of waste waters in water units.	are listed in chapter 6 – points 6.3. and 6.4
• Program 7.1.6. Measures to define prohibitions for introducing contaminators from diffuse contamination sources and measures to prevent or mitigate the contamination: BG1MB098 - Prohibitions on abandoning, unregulated disposal or burning or other form of uncontrolled disposal of waste; BG1MB082 - Control over the implementation of the EIA permit conditions; BG1MB108 - Control on the industrial areas for industrial and hazardous waste; BG1MB109 - Control on the impact of the pollution of air on the waters condition; BG1MB085 - Surface and underground water monitoring for assessment of the condition of the water bodies.	Accepted, addressed in detail in Chapter 4, section 4.1.2.4 and the relevant measures are listed in chapter 6. .
• Program 7.1.7. Measures to prevent pollution of the waters with priority substances: BG1MB055 - Monitoring of waste waters which contain adverse of hazardous substances; BG1MB056 - Monitoring of the waters and the water units which have been affected by the discharge points for waste waters which contain adverse and hazardous substances.	Accepted, addressed in detail in Chapter 4, section 4.1.2.4 and the relevant measures are listed in chapter 6.
• Program 7.1.8. Measures to prevent or reduce the impact of emergency pollution: BG1MB114 - During emergencies which create premises for pollution of the water unit, the permit holder is obliged to take the necessary measures for mitigation and/or liquidation of the consequences from the pollution and to immediately inform the respective bodies; BG1MB117 - Preparation of a safety report, emergency plan of the enterprise and/or facility by operators of enterprises and/or facilities with high risk potential; BG1MB118 - Regulation for actions by the operator of the enterprise and/or the facilities in case of occurrence of a major accident; BG1MB120 - Preventive activity for non-admitting and reducing the adverse consequence in case of occurrence of accidents.	Accepted, addressed in detail in Chapter 4, section 4.1.2.4 and the relevant measures are listed in chapter 6.
• During the implementation of the investment proposal it is necessary to observe art. 46, para 2 of the WA and the measures for protection of the underground waters from pollution whereas the prohibitions of art. 118a, para 1, items 2÷5 of the WA should be taken into account. If necessary, the issued permits according to the WA for the water abstraction and utilization of Kozloduy NPP Plc. water unit need to be modified, if during the implementation and operation of the investment proposal the parameters of the already issued permits for water abstraction and waste water	Accepted, addressed in detail in Chapter 3 and Chapter 4of the EIA – R. PMF does not use or generate wastewater that could leaded to an application for modification of the issued permits for water use and water discharge.

discharge points cannot be met.	
1.2 With regard to the emission norms in the waste waters, fact records for 2009 and 2010 have been ascertained, clearly presented in tables, but it is not clear what is envisaged to avoid deviations from the norms.	Accepted, the facts have been discussed and measures for avoidance of deviations have been indicated in EIAR chapter 4 and chapter 6.
1.3 In report 1, chapter 3 there are some technical inaccuracies in i.3.2.3 Hydrogeology, which need to be corrected.	Accepted, included in chapter 3, section 3.2.3.
1.4 The underground water body BG1G0000QPL023 Pore Waters in the Quaternary between the rivers of Lom and Iskar needs to be added on pp. 31 - 33, since the most South eastern part of the site of the NPP falls within this underground water body where the cover in particular is of sandy loess and typical loess.	Accepted, the indicated water body has been added.
1.5 The available data for 2009-2011 should be used on page 38.	The remark has been included.
1.6 Table 3.2.3.4-1 Average annual admissible concentrations of separate radionuclide in the groundwater radionuclide indicators have been listed, whereas after this for the underground waters data have been indicated only for beta activity and tritium, whereas for the remaining indicated only data have been quoted from a mathematical model for migration in underground waters within the boundaries of the non-flooding terrace. At the same time investigation has been made for rainfall and waste waters - as indicated on p.38. "During the gamma-spectrometry analyses of the waste and rainfall waters at the Depot for Non-nuclear Household and Industrial Waste (DNHIW[1]) no technogenic activity has been recorded. All results for ^{54}Mn, ^{60}Co, ^{134}Cs and ^{137}Cs are lower than the respective MDA (0.096÷0.95Bq/l)." Clarify what indicators are investigated in the underground waters during the house monitoring and add additional data available.	Accepted, information on the investigated parameters has been added in chapter 3, and available data from the in-house monitoring has also been added.

[1] RCMIW in the original English translation of the EIA Report.

1.7 Correct the technical error on p. 37 "The highest total activity is 2.43Bq/l, measured at the territory of the RAWSF" - clarify whether this is alpha or beta activity.	Accepted and corrected
1.8 Clarify whether the available boreholes from the house monitoring at the site of the NPP are sufficient to reflect the effect of the plasma melting facility on the underground waters and this assessment should be added to the report. If ascertained that the available boreholes do not provide a sufficiently representative assessment for the effect of the facility on the underground water, it is necessary to envisage to construction of a new monitoring bore hole.	Accepted for clarification, which together with the assessment has been made in EIAR chapter 4. The PMF IP does not discharge production waste waters requiring a new monitoring bore hole.
2. On the Biological Diversity component	
2.1 Provide topical information for all protected territories falling within the 30-km area around the Kozloduy NPP whereas implementation impact assessment should be made for the investment proposal over them.	Accepted, The information is supplemented and up-dated for all PA and PT in the 30-km area around KNPP and an assessment of the IP impact on them is made. Current information is presented in it. 3.10.1.
2.2 Correct the term error made in the text of Chapter 4, i. 4.1.1.11.	Accepted, included in chapter 4, section 4.1.1.11.
Radiation aspect of the impact Due to the specificity of the investment proposal, in the EIA Report the radiation impact should play a dominant role for the assessment of risk for the environment and the population in the vicinity of the Kozloduy NPP. In this relation, in the report submitted on the one hand there are the non-radiation aspects which are larger in volume and content, whereas at the same time the statements related to the radiation aspect of impact of the investment proposal are scanty and declarative, repeating totally and solely the provisions of the Regulation on Safety during Radioactive Waste Management (prom. *SG, issue 72/17.08.2004).* Taking into account that the submitted EIA Report concerns a facility which would be located at the site of nuclear power plant which has been in operation for years, it is first and foremost important to prove the presence or, respectively, the absence of a cumulative effect of the commissioning of another nuclear facility at the territory of the plant site. According to the EIA Report the potential radiation impact is localized within the plant site and it is negligibly low off the site. This statement needs to be proven and justified. For this purpose it is necessary:	Accepted, Attachment 10 includes the performed "Analysis of the dose rate for the population in the KNPP 30-km monitored area from the gaseous and liquid releases in the environment from the decommissioning process of Units 1-4 and the emissions from the operation of the Plasma melting facility (PMF, Project 5c)". The results from the modelling are used for proof and justification of the assessments and forecasts made in EIAR chapter 4, as well as in DIAR (EIAR Attachment 17).
3.1 To present radionuclide emissions model for point sources at the Kozloduy NPP site.	Accepted. Based on the performed

3.2. If there is presence of a cumulative effect of impact due to the operation of the facility it is necessary to re-calculate the dimensions of the already established Kozloduy NPP areas with specialized status.	modelling given in Attachment 10, it has been established that in the calculation of the cumulative effect to the normal KNPP operation from emissions resulting from the decommissioning of KNPP Units 1-4 and normal operation of the Plasma melting facility (PMF, Project 5c) leads to negligible increase of the maximal individual and collective effective doses by 0.5 to 1%. Therefore, recalculation of the dimensions of the already established special statute areas at KNPP is not necessary.
3.3 Provide consecutive physical barriers over the ways of spreading of radioactive substances in the environment since safety of such a facility is based on the concept of defense in depth.	Chapter 1 includes description of the physical barriers over the ways of spreading of radioactive substances in the environment. The existing ones are completely sufficient to ensure the safety during normal PMF operation.
3.4 Guarantee that during normal operation, expected operational conditions and design based accidents in the facilities, the established dose limits defined in art. 9, i.1 and 2, as well as in i.3 - for the period after the closure of the facility - would not be exceeded as per the above mentioned regulation. For this purpose detectors need to be provided which would assure the on-line monitoring of the radiation gamma-background.	Accepted, indicated in measures it. 6.1.2.1.
3.5 Develop and implement a Programme for house radiation monitoring which should be part of the common Programme for radiation monitoring of the plant site.	Accepted, indicated in chapter 6.
4. With regard to the analysis and assessment of the significance of the positive and negative effects over the individuals and the possible health risk from the construction and operation of the investment proposal made in the EIA Report	
According to a statement received by the Ministry of Health Care (MH), the submitted information with regard to the radiation impact of the facility and	Accepted, chapters 3 and 4 are supplemented in terms of impact on the population based on available data and performed modelling

the risk for the human health is incomplete, unclear and with significant gaps.	given in Attachment 10.
In the EIA Report the selected model for the assessment of the public dose exposure has not been described and its parameters have not been justified with regard to: - the public critical group for which assessments are performed; - the radionuclide composition of main irradiation source (gas and aerosol radioactive releases) and the activity of the annual emissions. In most of the EIA Report sections the results of the analyses and the investigation are not presented in the necessary degree of evidence provided. In many cases the assessment is only in terms of quality, quantitative analysis is missing. The references to results from the preliminary analyses (Interim Safety Analysis Report for the PMF I-650-RP-0012(B) Rev. 2, 2011) do not contain description of the models used, the output data, the software products, etc. and are insufficient for performing independent assessment of the report conclusions. With regard to the above, **the MH gives negative assessment** to the quality of the EIA Report. The comments on the specific texts are presented in the attachment to the present letter.	Accepted. Attachment 10 includes the performed "Analysis of the dose rate for the population in the KNPP 30-km monitored area from the gaseous and liquid releases in the environment from the decommissioning process of Units 1-4 and the emissions from the operation of the Plasma melting facility (PMF, Project 5c)". The conclusions confirm and supplement the findings made in EIA R, because it has been proven by modelling that the additional dose rate from PMF is about 500 times lower than that of the natural gamma background (2.33mSv).
5. Other comments concerning the EIA Report	
5.1 The required evidence (specified in letter out. № 26-00-2007/31.07.2012 by the MEW) for performed consultations under article 95, paragraph 3 of the Environmental Protection Act with "other specialized administration and the public concerned" have not been presented in the necessary attachments to the EIA Report. In the tabular form recommended by us, only the expressed statements on behalf of the MEW and MH have been addressed, whereas information is missing on the implementation of the instruction under art. 9 of the EIA Regulation.	Accepted. All additionally received letters with their opinions and statements are presented in chapter 7 of EIAR, and copies of the letters are included in Attachment 6 of chapter 11.

5.2 The EIA Report should contain topical data on the regulatory basis used and promulgation of the modifications and the amendments.	Accepted, the normative base in chapter 5 is completely updated.
Ministry of Health Comments (Appendix)	
On Chapter 4: "Description, analysis and assessment of the significant effects on the population and the environment resulting from the implementation of the investment proposal".	Accepted, the methodology for calculation of the impacts during IP implementation and during emergencies has been presented.
Section 4.1.2 "Possible impact during the operation and the decommissioning of the PMF": The following texts from i.4.1.2.2 "From what has been said it follows that no radiation impact should be expected over the public of the investigated territory", "The observance of these requirements does not provide grounds to expect radiation impact on the public and the economy during the operation of the PMF within the boundaries of the 30 km area of Kozloduy NPP, both on Bulgarian territory and the territory of the neighbouring Romania" are unjustified and have not been substantiated with quantitative assessments.	Accepted. Attachment 10 includes the performed "Analysis of the dose rate for the population in the KNPP 30-km monitored area from the gaseous and liquid releases in the environment from the decommissioning process of Units 1-4 and the emissions from the operation of the Plasma melting facility (PMF, Project 5c)". The conclusions confirm and supplement the findings made in EIAR, because it has been proven by modelling that the additional dose rate from PMF is about 500 times lower than that of the natural gamma background (2.33mSv). The maximal annual effective dose for the population in the KNPP 40-km area (including the 30-km monitored area) resulting from aerosol emissions only 6MBq during normal operation of the Plasma melting facility (PMF) is evaluated at $5.47.10^{-10}$ Sv/a, which is barely 0.01% from the total dose rate resulting from all the activities at KNPP site.
The text from i.4.1.2.3 "Share of the flue gases from the PMF in the total emission from the stack is 0.17 %" contradicts the data presented in Chapter 3 for released activity from the ventilation stacks of the NPP (in 2010 - 28 MBq radioactive aerosols). Even if we accept the assessed value of the PMF discharges of 6 MBq for correct (see comment to section 4.1.9), this is equal to 21% of the total discharges.	Accepted, the remark is included in the relevant EIAR chapter.

Section 4.1.3 "Possible impact during the operation and the decommissioning of the PMF": The text from i.4.1.2.3 "Share of the flue gases from the PMF in the total emission from the stack is 0.17 %" contradicts the data presented in Chapter 3 for released activity from the ventilation stacks of the NPP (in 2010 - 28 MBq radioactive aerosols). Even if we accept the assessed value of the PMF discharges of 6 MBq for correct (see comment to section 4.1.9), this is equal to 21% of the total discharges.	The methodology and the models for calculation of the dose rate for the population and the personnel are presented in section 4.3.1.
Section 4.1.3 "Possible impact as a result of accidents": Table 4.1.3-1 with public dose exposure assessment in case of possible accidents refers to the Interim Safety Analysis Report (ISAR). The dose assessment model has not been described and judgment cannot be made whether the conclusion "the impact on the staff, public and environment is negligible" is correct. The same comment applies as well to the values of table 4.1.8.8-1 and the conclusions from i.4.1.8.8, where the relevant texts form section 4.1.3 are repeated with no significant changes.	The methodology and the models for calculation of the dose rate for the population and the personnel are presented in section 4.3.1.
Section 4.1.9 "Radiation Impact":	In accordance of the legislation on the human health protection
In i.4.1.9.4 an assessment has been made on the committed public dose exposure (due to inhalation of radioactive aerosols) during normal operation of the PMF. In the textual part of the paragraph the working parameters of the PMF have been indicated according to which the calculated annual activity of the aerosol discharged in the environment is equal to 6 MBq; every single one of these parameters, the final result accordingly, can be questioned:	Accepted, the remark has been included in chapter 4.

Parameter	**EIA REPORT**	**"Real"**	**Motive**
Input activity, Bq/g	1.34E+11	1.0E+12	According to the PMF parameters (see table 1.2.3.1-1 of Chapter 1): annual productivity of 250 tons of RAW with design based specific activity of 4×10^6 Bq/kg

Passed in the smoke gas	15%	57.5%	Assuming that: a) the radionuclide composition of the RAW is 50% ^{60}Co and 50% ^{137}Cs (as per Chapter 1, the NPP typical waste consist of significant quantities of ^{60}Co and ^{137}Cs); b) 15% of Cobalt and the whole quantity of Cesium passes into the smoke gas as a volatile metal (boiling temperature of 671°C, see comment)
Purification efficiency	99.97%	99.7%	As per items 4.1.2.1, 4.1.2.3, 4.3.3 and 4.4.1
Output activity, Bq/g	6.03E+06	1.7E+9	$1 \cdot 10^{12} \times 0.575 \times (1-0.997) = 1.7 \cdot 10^{9}$

Note: The volatile elements (including their radioactive isotopes) - as Cesium, Iodine or Hydrogen (Tritium) - pass mainly in the output gas [Application of Thermal Technologies for Processing of Radioactive Waste. IAEA-TECDOC-1527, 2007].
The output ("real") activity of 1.7 GBq/g assessed by the National Center for Radiobiology and Radiation Protection (NCRRP) exceeds 6 times the PMF annual emissions criterion indicated (0.3 GBq/g) and differs about 300 times from the value of 6 GBq/g accepted in the Report. The assessment made on the "real" annual emissions question the values from table 4.1.9.4-1 with doses from aerosols inhalation for the public during normal operation of the PMF, and respectively the conclusion that the "Public dose exposure during normal operation of the PMF is negligible".
The same comment applies to Section 4.4.2 "Public committed dose exposure during the PMF operation", which literally repeats the text from item 4.1.9.4.

On Chapter 8 "Expert Conclusion"	
Harmful physical factors The expert conclusion made that "It can be concluded that there will be no impact on the radiation γ-background during the PMF operation and decommissioning activities, including dismantling. Emissions of gaseous RAW during PMF operation and decommissioning are limited to the permitted levels for aerosols and therefore have negligible impact", is not confirmed with the necessarily level of clarity by the texts of the report provided.	Accepted. Attachment 10 includes the performed "Analysis of the dose rate for the population in the KNPP 30-km monitored area from the gaseous and liquid releases in the environment from the decommissioning process of Units 1-4 and the emissions from the operation of the Plasma melting facility (PMF, Project 5c)". The conclusions confirm and supplement the findings made in EIAR, because it has been proven by modeling that the additional dose rate from PMF is about 500 times lower than that of the natural gamma background (2.33mSv). The maximal annual effective dose for the population in the KNPP 40-km area (including the 30-km monitored area) resulting from aerosol emissions only 6MBq during normal operation of the Plasma melting facility (PMF) is evaluated at $5.47.10^{-10}$ Sv/a, which is barely 0.01% from the total dose rate resulting from all the activities at KNPP site
On Chapter 11 "Other information"	
In Attachment № 10 "Disperse modelling of the spreading of contaminators:	The remark has been including by giving a short description of the approach in modeling the distribution of pollutants in Attachment 10 of EIAR.
Maximum ground concentrations of the PMF at Kozloduy NPP (modelling)": results for the spread of the radioactive aerosol emissions have not been presented.	Presented in section 4.3.1.
The PMF radiation impact assessment made and the human health risk assessment are incomplete. The value accepted in the report for the activity of the annual emissions also questions the radiation impact assessment on the units of the environment.	Accepted, EIAR has been supplemented and updated in chapters 3 and 4. Attachment 10 includes the performed "Analysis of the dose rate for the population in the KNPP 30-km monitored area from the gaseous and liquid releases in the environment from the decommissioning process of Units 1-4 and the emissions from the operation of the Plasma melting facility (PMF, Project 5c)". The conclusions confirm and supplement the findings made in EIAR,

	because it has been proven by modelling that the additional dose rate from PMF is about 500 times lower than that of the natural gamma background (2.33mSv). The maximal annual effective dose for the population in the KNPP 40-km area (including the 30-km monitored area) resulting from aerosol emissions only 6MBq during normal operation of the Plasma melting facility (PMF) is evaluated at $5.47.10^{-10}$ Sv/a, which is barely 0.01% from the total dose rate resulting from all the activities at KNPP site.
The poor knowledge of the team of experts who prepared the EIA Report in the area of radiation protection and radioecology is obvious in the use of terms and concepts which differ from the generally accepted terminology in these fields (as for example: radiation doses, radioactive dust particles, radiation contamination, radiation exposure, irradiation exposure, radiological areas, radioactive radiation, etc.	The use of terms which differ from the generally accepted terminology is rather a technical mistake due to the translation of the text of the TOR terminology.
III. ON CAR	
1. After analysis of the information set out in the CAR and on the basis of the criteria of article 24, para. 3 of the Regulation on the conditions and order for performance of plans, programs, projects and investment proposals compatibility assessment with the subject of the goals of preservation of protected areas (Regulation on CA, prom. *SG, issue 73/2007, mod. and am. SG, issue* 94/2012), the following was ascertained: Regardless of the fact that as a whole the EIA Report structure is in compliance with the provisions of art. 23, para. 2 of the CA Regulation, we consider that the information provided in it does not provide a possibility for definite conclusions, due to the following: *за ОС, обн. ДВ, бр. 73/2007 г., изм. и доп., ДВ, бр. 94/2012 г.)*, е установено следното: Projects related to the decommissioning activities of Kozloduy NPP Units 1-4 have been described in detail in the EIA Report, but assessment of the possible	Accepted. In the updated version of DIAR in item 3 (“Description of the IP elements which individually or in combination with other plans, programs and projects/IPs could have a considerable impact on the protected areas or their components”) all other IPs on the KNPP territory have been considered, which in combination with the present IP could have a negative impact on the PA. The performed complex analysis of the impacts during PMF construction, operation and closure leads to the conclusion that subject to keeping of the current practices negative impact on the PA is not expected, including cumulative effect in combination with the other IPs. Conclusions from the performed modelling have also been used.

cumulative effect between them and the current investment proposal is missing. At the same time the cumulative effect is considered only in relation to investment proposals, the comparative analysis of the features which allows the authors to derive a conclusion for the lack of "additional adverse effect" over the subject of protection in the protected areas. The sole and only fact that the assessed investment proposals differ in nature from the current one does not provide grounds for the EIA Report authors for motivation of the lack of additional impact. It is necessary that the EIA Report be amended with cumulative effect analysis both from the similar in nature projects related to the decommissioning activities of Kozloduy NPP Units 1-4 and also from the investment proposals of different nature, where the conclusion needs to be derived not only on the basis of similarity or difference in the characteristics of the individual proposals.	
2. Information is missing in the EIA Report on the performed terrain studies: duration, time scale (field seasons), observation point coordinates.	Accepted. In the updated CAR in item 11.2.1 The time scale of the observations is indicated.
3. In the part on the investment proposal impact assessment over the subject of preservation of the birds protection area BG0002009 Zlatiyata, it is assessed that the impact on the Eurasian Bittern would be in a small extent and with total table factor of 1.8, and the impact on the Long-legged Buzzard would be in an average extent and again with a table factor of 1.8. Considering the identical factors, it remains unclear what gives rise to the difference in the level of impact. On the other hand, the assessment for the Long-legged Buzzard is contradictory, since in one place in the report the authors claim that no negative impact is expected on the species, and later they determine "average extent".	Accepted. A technical mistake has been made, as in the summarized table (Table 5.1.2-4) a species with average extent of impact has not been presented. The mistake has been corrected.
All of the conclusions for a small degree of impact or for lack of negative impact on the subject of preservation in all of the assessed protected areas**, have not been substantiated with the necessary scientific evidence and have not been derived as a result of an expert analysis and quantitative results from a terrain study**.	Accepted. Each species has been reviewed individually and the respective data are presented regarding the status, distribution and numbers in Bulgaria, in the respective protected area and at the IP site (if there are available data – literary and own). Field

What is also found is the inconsistency of the terminology used, as for example: the conclusion for assessment of a level of impact of 1.8 is for "small extent", whereas the scale for the respective value is "very small impact", which also differs from the legend for the respective value described in the part on the "Information for the methods used". The following effects: fragmentation, Disruption of the species composition, chemical changes, hydrological changes and geologic changes are only listed in the text as separate items, but the only text part of the respective item is "not expected". This statement has no substantiation and it has not been proved by the authors.	studies comprise over 155 days during all seasons, which is completely sufficient for analysis and conclusions. According to us (authors of CAR) small extent=small impact. Significant supplements have been made in sections 5.1.3 to 5.1.8.
4. In the EIA Report fig. 8.1-2 is missing regarding the ornithological environment in the region of the birds protection area BG0002009 Zlatiyata, mentioned on p.89	Accepted. Fig. 8.1-2 has been presented.
5. On page 89 there is a summary that the impact on the birds species preserved in the birds protection area BG0002009 Zlatiyata, "will be in the form of disturbance of the species". No mitigation measures have been envisaged for this impact.	Accepted. Supplements are made in section 6.1.
. In the "Proposals for measures" part only 2 measures have been proposed, one of is to inform the people working for the objectives and the subject of conservation of the protected area (which one is in question has not been clarified), and the second is to observe the requirements of Kozloduy NPP emergency plan in case of emergency. The so proposed 2 measures could not mitigate the expected impact; moreover, during the impact assessment over the birds protection area BG0002009 Zlatiyata, the authors derive the conclusion that "**The negative impact will be in the form of disturbance of the species**". In this relation it is necessary to set out specific applicable measures corresponding to the expected impact.	Accepted. Supplements are made in section 6.1.
6. We draw your attention to the fact that the information presented in the EIA Report on the protected areas falling within the scope of the investment proposal located on Romanian territory should be a subject to the EIA Report in the part concerning the impacts in transboundary aspect.	Accepted. The information on the protected areas on Romanian territory is included in the EIAR in a separate section – 11.5.

In relation to all of the above and on the basis of art. 24, para 4 of the CA Regulation, **the assessment of the quality of the submitted report for compatibility assessment** of the investment proposal **is negative**.
According art 14 (8) of the EIA Regulation and art.24 (6) of the CA Regulation the CAR under art.34 (10 of the above mentioned regulation is returned **for supplementation and reworking in accordance with the above mentioned remarks**.

MEW letter № OVOS-277/28.05.2013 concerning– Evaluation of the quality of an additional EIA report and of a reworked Compatibility assessment report (CAR) for investment proposal "Facility for Treatment and Conditioning of Radioactive Waste (RAW) with high volume reduction factor (HVRF) at Kozloduy NPP

I. As regards the EIA Report (EIA-R).

Following the review of the documents submitted to us, in accordance with art. 14 paragraph 3 point 2 from *the Regulation for the conditions and the order for carrying out EIA* (Regulation for EIA, adopted with Letter of the Council of Ministers Nr. 59/year 2003, last amended SG, issue
94/2012), the evaluation of the quality of the aforementioned complemented EIA Report **is positive,** with omissions which are not of material importance when making a decision

1. **Component "Atmospheric air"** Section "Atmospheric air" - Chapter 11, Attachment 10 regarding the modelling of dispersion of atmospheric pollutants states as follows *"The calculation model includes the elaboration of four simulation options of the harmful emissions dispersion at the ground atmosphere layer, which are part of the waste off-gases from the site stationary source."* At the same time only one option is presented, which related to calculation of the instant one-hour ground concentration of the harmful substances, and it is not specified how the respective meteorological conditions were selected for the purposes of modelling. The ground concentrations of fine dust particles (FDP) should be calculated. The complemented report calculates the ground concentration only of the total dust. It should be known that the gravimetric deposition (Wg) is zero only for gases. The authors have used zero in the modelling when determining the ground concentration of the total dust. In case the precise size of the particles is not available, the calculations are made with a deposition rate Wg = 0.07m/s.	Accepted. A technical mistake has been made regarding the number of the models, because in the preliminary investigations several models were reviewed. Later on, in the course of the investigations, the number of models remains 1 and the mistake has been corrected in the EIAR text for public discussion. In the EIAR text, which will be submitted for public discussion, it is stated that the meteorological conditions are taken from the Contracting authority, as well as from the climatic guide of Bulgaria, including "Wind rose". In the EIAR text, which will be submitted for public discussion, the calculations and the model for the FDP_{10} are also supplemented. The calculations and the model for common dust and FDP_{10} are made with a deposition rate Wg = 0.07m/s. The supplemented calculations do not change the conclusion regarding the impact, but are more precise.

2. **The "Waters" component** - underground waters - the substantial comments and the required data have been resolved in the complemented report. Some inaccuracies have not been corrected, as follows: 2.1 Some technical errors are noted in Report 1 - on the preservation of protected territories - for instance on page 17. Secondary Treatment Chamber it is stated: "The refractory is designed to receive hot gases of about 1300°C from the PTC.", and further down it is said that "The inner refractory layer of the STC will be designed to withstand a maximum temperature of 1500°C." 2.2 In Report 3 - some technical inaccuracies should be corrected in item 3.2.3. Hydrogeology, namely, on page 30: "plain" after proluvial quaternary depositions should be deleted, "Hocene" should be changed to "Holocene".	Accepted. Technical mistake is corrected in chapter 1, page 17. The remark is in regard to a technical mistake and is accepted. It has been removed from the EIAR text, which will be submitted for public discussion.
3. **The "Biologic diversity" component** In Chapter 3, item 3.10.2 and item 3.10.3. not all protected territories and protected areas are included in the 30 km zone around the NPP. The information in the sentence in item 3.10.3. Protected territories "According to the documents Territories Protection Act there are no protected territories in the area of the municipality Kozloduy" is not true. The protected locality Kozloduy is located on the territory of Kozloduy Municipality; it is declared as such according to the Protected Territories Act.	Accepted. In chapter 3, items 3.10.1 and 3.10.3 the text has been corrected, and all the protected areas and protected territories in the 30-km KNPP monitored area are listed. The text in item 3.10.3 is corrected to include the protected locality Kozloduy.
4. Statement from the Ministry of Health (MH) 4.1 The text of paragraph 4.1.2.3 (page 50) "The share of the off-gases from PMF in the total releases by AB-2 vent stack is 0.17%, with released activity of 5.48 MBq, according to data for 2011." contradicts the figure stated on the same page for the PMF output activity - 6 MBq per year. The required correction should be made.	Accepted. Corrected in the EIA R.

4.2 All the comments related to the dose limits according to art. 10 and 11 from the Regulation on the basic norms for radiation protection (prom. SG, issue 73/2004) should be replaced by the requirements of art. 14 and 15 of the Regulation on the basic norms for radiation protection (prom. SG, issue 76/2012). In conclusions, the Ministry of Health gives a **positive evaluation** on the complemented and corrected EIA report for the above mentioned investment proposal, provided that the EIA-R shall address and resolve the comments as stated above **prior to its public consultation**.	The dose limits have been corrected in the separate EIA R chapters according to art. 14 and 15 of BNRP-2012.

II. As regards the CAR.

Taking into consideration the before stated and on the grounds of art. 39 paragraph 8 from the Regulation on CA a **positive evaluation** is given according to the meaning of art. 24 paragraph 5, item 2 from the Regulation on CA for the quality of the CAR for investment proposal "Facility for Treatment and Conditioning of Radioactive Waste (RAW) with High Volume Reduction Factor (HVRF)" at Kozloduy NPP.