Thank you for your response in due time considering the size of the documents provided. Given large amount of information to be processed in such short period, please allow us to clarify the points referenced in your letter.

## I. Comments regarding point I of your letter

## **1.** General comments

The entire documentation provided is in English and specific terminology is accurate. In addition to that, Section 6.3 of Chapter 6 was also provided in Bulgarian using indeed automated translation, but the English version could be used for clarifying any translation uncertainties from the Bulgarian version.

Also, please note that Section 6.3 is just a summary of the potential impacts that might have a transboundary effect. For more detailed information regarding the impact assessment, one must read Chapter 6 in its entirety, not just Section 6.3.

## 2. Regarding the health risk

Please note that all activities and project processes are described in detail in Chapter 2, which is dedicated exactly to providing this type of data, and in the annexes of the document. For example:

detailed information about drilling activities are provided in section 2.2.4.6, whereas the chemicals and estimated quantities are addressed in Section 2.4.3 and Annex G. The information regarding the NORM is presented in section 6.1.8.3.2. and the explanation of why NORM is not a concern considering the implemented measures is presented in Section 6.2.8.2.3. where you may find the natural radionuclides and the related conclusions of the risk assessment. As presented in the before mentioned sections, the reservoir water may contain cations of group II (periodic table), strontium, barium and radium dissolved from the reservoir rock, consequently, it may contain the radium isotopes <sup>226</sup> Ra of the <sup>238</sup> U series and <sup>228</sup> Ra and <sup>224</sup> Ra of the <sup>232</sup> Th series. The decay of radium results in radon.

It is important to understand that all natural water bodies including spring water, rain water, even tap water, contain naturally occurring radioactive materials (NORM), but concentrations are generally orders of magnitude below harmful levels. The produced reservoir water is not measurably more "radioactive" than the seawater.

Hence, also the reservoir water may contain as well minor amounts of naturally occurring radioactive material, that isn't harmful in the concentrations found in the produced reservoir water itself, as they are at concentrations which are below detectable limits. Only when allowed to accumulate as <u>scale deposits inside the pipes</u> of the production system, it could become an issue. Therefore, mitigation of NORM risk implies mitigation of scale deposits risk inside the pipelines. As mentioned in the submitted EIA Report, such measures are already proposed for implementation by using a scale inhibitor in the production system.

In conclusion the activity concentration of natural radionuclides is estimated to be below the detection limit and therefore below harmful levels. Accumulation of scale deposits on the inside of the pipes and installations may lead to a higher activity concentration if no mitigation measures are implemented. To prevent scales in the technological process, a scale inhibitor is injected into the wells. Based on the information provided in the EIA Report, there will not be associated risks of technogenic increase of ionizing radiation that could lead to the contamination of marine waters, coastal waters, bathing waters and implicitly of surface and/or subsurface waters from the terrestrial area, neither in Romania nor in Bulgaria due to the Neptun Deep Project.

- regarding the dispersion modelling of the chemicals, please note that section 6.3. which was translated in Bulgarian refers to the impact assessment in transboundary context. For more in-depth data regarding the chemicals used and the dispersion modelling, document RO-ND-D-IO-00-EV-REIS-0007-0001\_P01\_ENG Produced water simulations for the Neptun Deep development provided in Annex M should be read. Analyzing the modelling scenarios show that the discharge of the production effluent will not impact the Bulgarian economic exclusive zone (~35km away) nor the territorial waters (~145km away), coastal waters, bathing waters or shoreline (165 km away). The discharge reaches no effect concentration in a couple of hundreds of meters distance from the discharge point.
- Regarding the spill modelling report provided in Annex M or the EIA Report, it is important to mention that the Neptun Deep Project is a gas production project without any liquid hydrocarbons (oil).

Therefore, the spill scenarios used include two worst case scenarios of accidental spill of marine fuel, one from the platform installation vessel resulting in a spill of 300m<sup>3</sup> of marine fuel, and a second one from the collision between the drilling rig and one of the support vessels resulting in a spill 165m<sup>3</sup> of marine fuel. Considering the use of international renowned contractors for the execution of the project, such accidents resulting in spills of such large volumes is highly improbable. Therefore, the quoted 21% and 25% likelihood percentages should be considered in connection with the high improbability of the scenarios to actually occur.

Even in such a hypothesis, the results of the modeling in the worst-case scenarios show that in most situations, the impact on surface waters will remain within Romanian waters, and as it moves, the thickness of the fuel film decreases. It must be remembered that the "impact" is considered to occur when the surface hydrocarbon film exceeds the silver sheen threshold -  $0.04\mu$ m (according to the Bonn Agreement). Thus, even in the hypothesis where no response actions would be taken, it is highly unlikely (<1% likelihood according to spill model probability maps) that in the case of a major accident scenario leading to a massive accidental spill of marine fuel, the bathing waters of the Bulgarian coast of the Black Sea would be affected.

The spill modelling was done taking into account a cold and a warm season (in terms of water temperature), covering the entire year.

Both scenarios are extremely conservative because they were modeled indeed with no spill intervention and without taking into account any fuel evaporation factor, in order to determine the absolute worst outcome possible. In reality, fuel evaporation plays a very important role and significantly reduces the spill size especially in the warm season. Moreover, obviously spill intervention measures shall be deployed immediately in accordance with the national marine spill contingency plan complemented by the project specific spill response plan, which is mandatory as per the legal provisions, and approved by competent offshore safety authority and the

water management authority. Given the current status of the project in terms of finalizing all the tenders for the execution, it is unknown at this time the final list of all the vessels involved in the construction, and subsequently the full inventory of spill equipment available. For this reason, the Spill Response Plan is under drafting and will be finalized before starting the execution of offshore part of the project.

Taking into account that in the EIA Report the impact on all environmental factors was assessed also in the transboundary context (being considered as not significant and additionally further mitigation measures have been proposed) <u>it cannot be assumed</u> that there is a likelihood of increased health risk in a transboundary context, resulting either from the production effluent discharge or from potential accidental spills.

Regarding the spill modeling the scenarios:

- Regarding RODL04- Kobadin Mangalia and RODL06- Vlachka platform ground water bodies please note that in Chapter 2, where the project activities are described, it is clearly mentioned that there will be no water wells drilled. Furthermore, the depth for onshore section of the microtunnel ranges between -3m and -10m as presented in section 2.2.3.3.1 of Chapter 2 and Annex B. According the performed geotechnical studies the depth of first underground water layer is -30m deep as presented in Figure 4.5 of Chapter 4. As a result, considering that the project does not plan to use any ground water and that the onshore and nearshore construction activities do not reach the first underground water layer, it is concluded that the RODL04 - Kobadin-Mangalia and RODL06 - Vlachka platform ground water bodies are not impacted or at risk.
- With regards to "the potential health risk for the Republic of Bulgaria from the implementation of the project is related to the possible pollution of Bulgarian territorial waters, including bathing waters and the adjacent coastline" please note that the only two potential transboundary impacts are the underwater noise and highly improbable accidental spill for which measures will be implemented. Neither of them has negative effects on the health of the Bulgarian population.
  In this context, the public health study attached to the EIA Report, assessed the impact in the areas in which effects may appear. This area was assessed as being only the area located in the proximity of the onshore facilities. Given the coordinates of the facilities and the distances to the Bulgarian borders (presented in Section 2.1.1.3. of Chapter 2), the Bulgarian population is outside of this potentially impacted area. To conclude, the reason for not having any additional references to the potentially affected Bulgarian population is due to the fact that the project does not generate impact on the Bulgarian territory and subsequently on its population, bathing waters or drinking waters.
- Regarding decommissioning, section 6.3.3.3 of Chapter 6 provides a general description of the decommissioning activities. The word "abandonment" is generally international term used for decommissioning of the wells. When the project is over, the wells will be plugged with multiple cement barriers as per an approved Plug & Abandonment Plan which will be in accordance with national regulations and international best practices. The rest of the facilities will be decommissioned

(safeguarded, dismantled and removed for onshore recycling) as described in section 6.3.3.3 mentioned above observing all the relevant regulations in place at that time.

Considering all clarifications provided above we believe that the relevant information was assessed and are available in the submitted documents and due to the very large number of pages to be reviewed, it's more a matter of identifying the location for the information in the files in such a short period of time. Consequently, we do not consider that the report requires updating for the aspects raised under point 2 of your letter.

- 3. Air emissions including greenhouse gases are presented in chapter 6, the dispersion modeling is attached in Annex M and the air emissions calculations is attached in Annex K.
- 4. Regarding your comments on biodiversity please note that, because the entire Romanian coastline is part of ROSPA0076 Black Sea, detailed assessment information concerning birds (including Puffinus yelkouan) is presented in the Appropriate Assessment Study which assesses the impact on protected areas and which was transmitted together with the EIA Report. The bird species mentioned in the Management Plan of the ROSPA0076 Black Sea natural protected area were considered. In this NATURA 2000 site, migratory and/or dispersive aquatic species are included, whose distribution range also covers special avifaunistic protection sites on the Bulgarian Black Sea coast.

The impact assessment on bird species was carried out in accordance with the approved national guidelines which are corelated with the EU applicable regulations, for each species within ROSPA0076 and the parameters related to the specific conservation objectives set through the management plan and the Decision of the National Agency for Protected Natural Areas (ANANP).

In the case of bird species of community interest for which the ROSPA0076 Black Sea special avifaunistic protection site was designated, the impacts generated by the project activities are temporary and reversible without producing changes in the size of the populations or the long-term availability of feeding and/or resting habitats.

Moreover, also in the EIA Report all activities with a possible impact on the birds during the construction, operation, and decommissioning periods were considered, including the artificial lighting of the platform and the possibility of bird collisions with the platform. It was concluded that the impact on avifauna will be local, temporary, reversible, and of low intensity. Based on the low sensitivity to the proposed project activities and a small magnitude, the impact was assessed as being minor.

Regarding the species Puffinus yelkouan, following the impact analysis, it was considered a receptor with low sensitivity because the possibility of collision with the ships involved in the project is very low, and the main threats to the mentioned species in the scientific literature, during passage, are related to accidental catches in fishing nets and oil pollution of marine water. These threats will not be amplified or influenced in any way by the implementation of the proposed project.

In the case of marine mammals, at the stage of establishing measures to avoid/prevent potential impact, the JNCC's good practice guides were also studied.

In conclusion, taking into consideration all clarifications provided above, we believe that the relevant information was assessed and are available in the submitted EIA Report and Appropriate Assessment and therefore we do not consider that the reports require updating for the aspects raised under point 4 of your letter.

## II. Comments regarding point II of your letter

We are in full alignment with your opinion that impacts on that biodiversity and habitats below 150m-200m depth of the Black Sea are unlikely.