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## Environmental and Social Data Sheet

### Overview

Project Name: ORANO URANIUM ENRICHMENT FACILITY  
 Project Number: 2023-0206  
 Country: France  
 Project Description: The project is to expand the existing uranium enrichment capacity in Orano's Tricastin nuclear fuel facilities, in France. The new installations will use modern centrifuge technology.

EIA required: yes

Project included in Carbon Footprint Exercise<sup>1</sup>: no

### Environmental and Social Assessment

#### Environmental Assessment

The project is to expand by approximately 30% the capacity of an existing uranium enrichment facility (George Besse 2 enrichment plant at the Tricastin nuclear site). The new installations will use modern centrifuge technology similarly to the one implemented at the existing units in operation. The objective of the project is to ensure safe and secure fuel supply for existing and future nuclear power plants that provide low-carbon power generation.

Based on its characteristics the project falls under Annex II of the EIA Directive 2011/92/EU as amended by 2014/52/EU. In accordance with the French Environmental Code the project is a substantial modification of a basic nuclear installation and therefore required an EIA process. Orano received in February 2024 the opinion of the competent authority on the environmental impact assessment report. The Nuclear Safety Authority (ASN) has already granted the commissioning decision and the responsible authority under the French Code of Urbanism, the Prefect of Drôme department issued the building permit for the extension project of the Georges Besse II plant in June 2024.

However, the final authorisation of the extension project that would allow its operation is subject to an amending decree by the Prime Minister to be taken on the report of the Minister in charge of nuclear safety that should incorporate among others the conclusions of the review of the EIA report by the environmental authority and the public consultation as well as the opinion of the Nuclear Safety Authority (ASN) and the Local Information Commission (CLI). Marking the end of this process, the final decree for modification is expected to be released during the second-half of 2026.

The project is a brownfield project to be implemented within an existing nuclear facility having an environmental permit and monitoring system in operation. The monitoring of environmental, health and safety performance of the project will be integrated into the existing environmental monitoring system of the Tricastin nuclear site.

The impacts associated with the project include construction health and safety, noise, vibration, dust, releases to the air and liquid effluents as well as water and energy consumption and

<sup>1</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20,000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.



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emissions as results of earthworks and construction activities, and the operation of heavy machinery and equipment on site. However, with mitigation measures implemented, including good construction practice measures and remedial actions, this effect is not considered significant.

The main mitigation measures to be implemented during the construction works of the project are:

- development of traffic routes, misting in dry weather to limit the flight of dust,
- regular maintenance of construction machinery,
- treatment of machinery washing water (decantation) and chute washing water (filtration, decantation and pH treatment) before transfer to the stormwater network,
- use of the existing sanitary and rain-fed networks of the Orano Tricastin platform,
- organisation of the site and the optimisation of waste management.

The operation of installations of the Georges Besse 2 plant in their current configuration and after the extension may give rise to atmospheric discharges and liquid effluents of radiological and chemical nature. These releases are dispersed into the environment and transfer to humans can take place via the aquatic, atmospheric and terrestrial environments. The enrichment activity represents a very limited fraction of all liquid and atmospheric effluents on the site: the feedback shows that the discharges related to the operation of Georges Besse 2 represent less than 1% of the radioactivity added to the environment by the activities of the platform. The impact of any such discards were assessed in the EIA Report confirming that the chemical and radiation risk to the environment and human health from atmospheric or liquid releases of the nuclear facility in current and future configurations (including the project) can be considered negligible. Moreover, limits in terms of airborne emissions and liquid effluents transfers already authorised and in force for the site with current configuration, will not be modified by the extension project despite the 30% capacity increase.

The main measures to prevent and limit impacts during operation of the facility following the implementation of the project, are:

- installation of a flue gas treatment system with periodic monitoring of parameters,
- transfer of liquid effluents to the existing treatment plant of the Orano Tricastin platform,
- use of the existing sanitary networks of the Orano Tricastin platform;
- management of stormwater on the site with a system of basins sized to be able to also recover stormwater from the extension,
- application of the provisions of the platform for waste management,
- reduction of electricity consumption for existing installations, in particular in the context of ISO 50001 certification,
- reduction of diffuse refrigerant losses from existing installations and replacement of refrigerants with substances with a lower Global Warming Potential (GWP). For the project, the choice is to use low GWP refrigerants.

The EIA report assessed the potential impact of the project on biodiversity including protected areas of community (Natura 2000 sites) and national interest. The construction activities at the site will not result in the loss of any habitats of increased conservation value given the current negligible biodiversity value of the project site (part of an existing industrial site). Direct impacts to flora and fauna will be negligible due to the absence of species of increased conservation value within the site. There are two Natura 2000 areas in the vicinity of project site, the Tricastin platform: the Site of Community Importance (SCI) 'Le Rhône aval' and the Special Protection Areas (SPAs) 'Marais de l'Île Vieille et a environs'. Some other areas belong to the Natura 2000 network but are located more than 5 kilometres from the platform. In addition, four Zones Naturelles d'Interêt Ecologique Faunistique et Floristique (ZNIEFF) are located less than 1 km from the platform. Overall, the impact assessment identified no significant effects upon ecological receptors neither during construction nor during operational phase of the project and confirmed that the plant extension project would not have any significant impact on the classified areas.



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The effects related to the operation of the facility including the extension project were assessed not only in isolation, but also considering the cumulative effects together with other installations present on the Orano Tricastin platform, and by taking into account other known projects.

In accordance with the EU's Radioactive Waste and Spent Fuel Management Directive 2011/70/Euratom France has a national policy for radioactive waste and spent fuel management and implements a national programme for the management of these materials. Decommissioning and waste management of the enrichment facilities at the Tricastin site are integrated into this programme.

The climate change mitigation and resilience aspects of the project were assessed in the EIA report. The calculation presented in the study concluded that the estimated absolute and relative GHG emissions related to the project considering both construction and operation phases are well below the threshold (20 kt CO<sub>2</sub>e/year) as defined for the EIB's Carbon Footprint Exercise (CFE). Therefore, GHG emissions have not been calculated and the project is not included in the EIB CFE. The EIA Report concluded that with some mitigation measures implemented, which include certain design measures the climate resilience of the facility is sufficient and no significant effects of climate change on the operation of the Project are anticipated.

The project has been assessed for Paris alignment and is considered to be aligned both against low carbon and resilience goals and policies set out in the Climate Bank Roadmap and Energy Lending Policy. The relevant criterion implemented is the one covering low-carbon energy sources, which meet the emission performance standard of the Bank.

### **EIB Paris Alignment for Counterparties (PATH) Framework**

The counterparty Orano is in scope and was screened in for PATH framework assessment for climate resilience based on its climate change vulnerability. Considering low carbon aspects, it was screened out, because it does not operate in a high emitting sector. Nevertheless, Orano has been engaged since 2004 in a programme to reduce its carbon emissions in order to be part of the overall effort to combat global warming and contribute to the reduction of residual emissions from the already very low carbon footprint of nuclear power. In 2020, the Orano Group set itself a new target to reduce its carbon footprint in line with the Paris Agreements and the National Low Carbon Strategy (SNBC). Over the period (2004-2019), the Orano Tricastin platform reduced its direct and indirect emissions associated with energy (Scope 1 and 2) by 86%. Given the internal targets set and the actions currently under way (notably on reducing electricity consumption), this downward trend is expected to continue.

The counterparty is not engaged in incompatible activities. No Environmental, Social and Governance (ESG) issues were defined that could directly contribute to increasing the climate vulnerability of communities and/or ecosystems. The appraisal confirmed the capability of the promoter to address physical climate risks from current and future climate change on their operations. Therefore, the counterparty already meets the requirements of the EIB PATH framework with its existing resilience alignment plan.

### **Social Assessment, where applicable**

The Georges Besse 2 plant is not located in a tourist, cultural, archaeological or leisure area. The project does not require involuntary resettlement, and it is not expected to have impacts on rights and interests of vulnerable groups. With implementation of the proper mitigation measures defined during the assessment phase the project will not result in any significant adverse social effects. Some minor to moderate beneficial effects are expected related to employment and economy.



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Occupational and public radiation doses associated with normal operations and abnormal occurrences at the nuclear facility are below the operational and regulatory dose limits and are therefore considered to be adequately controlled.

## **Public Consultation and Stakeholder Engagement**

In accordance with the French Environment Code, the project was subject to prior consultations conducted by investigating commissioners appointed by the administrative court from February 1st to April 9th, 2023. For the duration of the consultation the public inquiry file was made available digitally, on a dedicated website, and in hard copy in town halls. An online and paper register allowed the public to submit comments on the project. At the end of the public inquiry, the investigating commissioner issued an inquiry report.

Under the EIA process the project went through a public consultation process. After obtaining the opinion of the Nuclear Safety Authority and the Environmental Authority on the project safety report and environmental impact assessment report in February 2024, the public inquiry was organised from March 29th to April 30th, 2024.

The outcomes of the public consultations showed strong public interest about the activities at the Tricastin site. The debates often went beyond the project presented and addressed the place of nuclear power in the French energy mix in general. It should be noted that those who raised concerns against the project usually had issues with nuclear energy overall and accordingly they considered that this project serves more generally the development of nuclear energy. Questions were also raised about the potential risks of the parallel activities of the construction works of the extension project and operation of the plant. The promoter provided information on the planned measures to mitigate those risks. In general, major aspects of the project were not questioned by the public. Accordingly, the promoter is continuing with expansion project. To keep engagement with the public the promoter decided to extend site visits for external public, will strengthen communication with economic stakeholders, and will maintain dialogue with the public regarding the project by (i) collaborating with CLIGEET (Committee for Local Information and Dialogue on Environmental Issues), (ii) maintaining a project website, and (iii) participating in local events.

## **Other Environmental and Social Aspects**

The Integrated Management System (IMS) implemented by the promoter meets the requirements of the Quality, Health/Safety and Environment standards (certifications according to the ISO 9001, ISO 45001 and ISO 14001 standards) and applies to all activities on the site. Moreover, the site has been ISO 50001 'Energy Management System' certified since 2022. In this context, several actions to reduce electricity consumption are being studied or are being deployed.

The promoter operates the facility under stringent regulatory requirements and with comprehensive monitoring under the environmental license. Since January 2006, a common environmental monitoring network has been set up for all industrial installations on the Orano Tricastin platform. This Environmental Monitoring Network (EMN) provides an overall view of the quality of the environment. The radiation monitoring system consists of a set of sampling stations within and around the perimeter of the Orano Tricastin platform and carries out a large number of samplings (around 25 000 per year) and analyses (30 000 per year). In addition, this monitoring is complemented by those carried out by the regional air quality monitoring associations and the Water Agency. All radioactivity measurements are available on the website of the National Network for the Measurement of Environmental Radioactivity.

## **Conclusions and Recommendations**

The EIA Report demonstrated that with implementation of proper mitigation measures the effects of the nuclear enrichment facility in its future configuration, including the extension project, on health and the environment are not significant.



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The proposed extension project and the operation of the enrichment facility in its future configuration are therefore not likely to give rise to particular risks and nuisances that could harm health or the natural environment, both at local and regional level.

Taking into consideration the potential environmental, social and climate change related impacts of the project, the mitigation plans as well as the capacity of the promoter to implement the project the project is not expected to have significant residual environmental or social impacts, therefore it is acceptable for EIB financing in E&S terms.

The borrower undertakes to send to the Bank the final amending decree for modification of the basic nuclear installation George Besse II plant (INB 168) when it is issued.

The borrower undertakes to not engage in incompatible activities, in line with the EIB PATH Framework.