

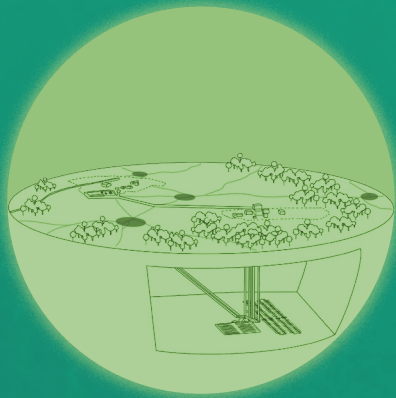


RÉPUBLIQUE  
FRANÇAISE

Liberté  
Égalité  
Fraternité



CIGEO MAG 2023



# Submission of the construction licence application for Cigeo

At the start of 2023, Andra submitted its construction licence application (DAC) for the Cigeo project, the deep geological disposal facility for the most highly radioactive waste. This is a crucial step marking both a culmination and a new start for the project.

First and foremost, it is the result of 30 years of progressive development under regular evaluation. Overtime, the scientific and technological aspects of the project have been refined. Today, we are submitting a construction licence application file (DAC) for Cigeo, based on well-defined design principles and a robust safety demonstration.

But the submission of the application and the upcoming review by the French Nuclear Safety Authority (ASN), together, also represent the start of a new phase: Cigeo is getting ready for the construction phase and Andra is becoming the operator. Although Cigeo is still under development, the Agency is already responsible for it, in terms of reporting to the ASN. During this review, progress needs to be gradual, initially specifying the particular elements to be prepared for construction and then for operation of the facility.

Cigeo is also the point at which a national project, supported by the State, meets a host region. Meuse and Haute-Marne are making their contribution to this work in the public interest, i.e. long-term management of radioactive waste, on the nation's behalf. We owe them a debt of recognition and our assurance of continuing support and involvement of local stakeholders in future decisions and choices. This is the guarantee of a lasting trust.

To put the project into perspective: the next few years ultimately represent a relatively short period, when compared with not only the decades of work that have gone before, but also the project's hundred-year deployment period, and even the challenge of geological disposal, aiming to offer a safe waste management solution for the next few hundred thousand years. Today we are demonstrating our responsibility to future generations, especially against the background of uncertainty in our society, to make sure that we do not leave them with the burden of the radioactive waste that we have produced.

**Pierre-Marie Abadie, Chief Executive Officer of Andra**

# CIGEO DISPOSAL FACILITY

Number of acts passed (1991, 2006 and 2016) and number of public debates organised (2005, 2013 and 2019), about or linked with Cigeo

3

Number of years of research for Cigeo, evaluated at regular intervals

30

Volume of high-level (HLW) and long-lived intermediate-level radioactive waste (ILW-LL) to be stored in Cigeo

83,000 m<sup>3</sup>

## RAMP ZONE

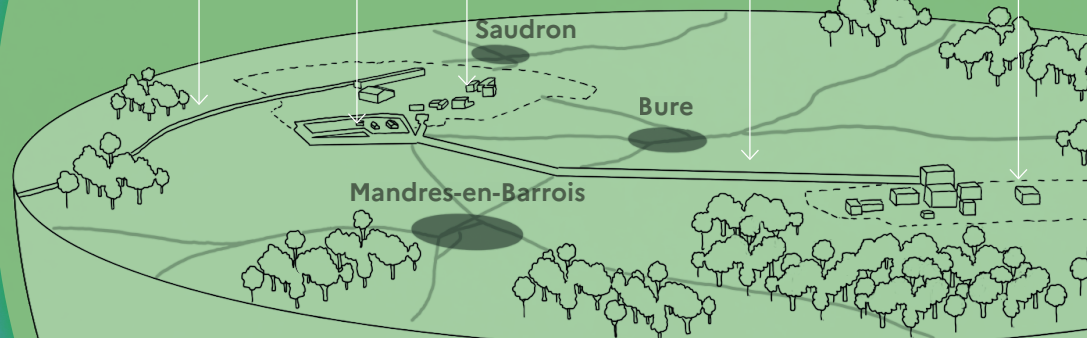
Zone for receipt, inspection and preparation of waste packages

## UNDERGROUND RESEARCH LABORATORY

## RAIL-CONNECTED TERMINAL

Rail infrastructure

## CONNECTION BETWEEN SEPARATE SURFACE FACILITIES



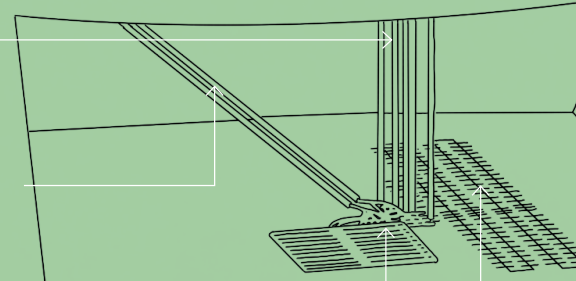
## SHAFTS

## DOUBLE RAMP

- 500 m  
Central level of the Callovo-Oxfordian argillaceous formation

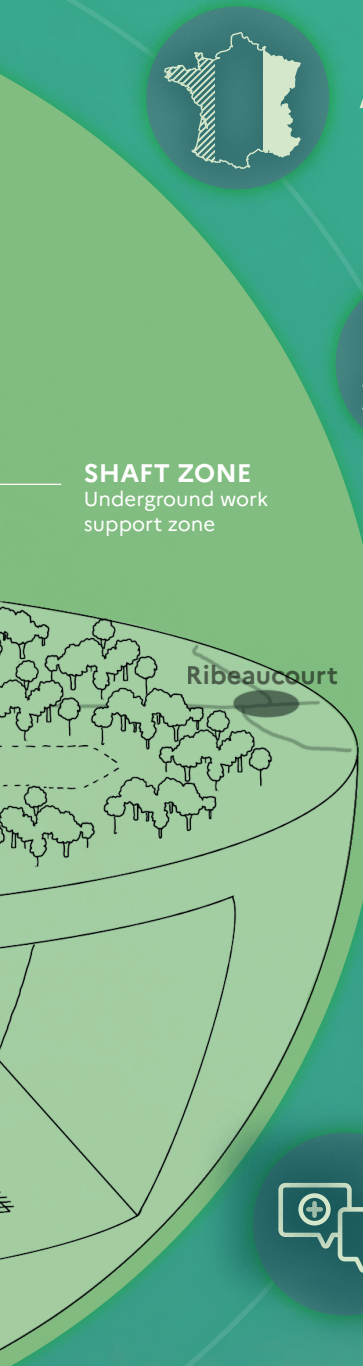
## ILW-LL DISPOSAL SECTION

## HLW DISPOSAL SECTION



Watch the video on storage stages

# MAJOR STAGES OF PROJECT



**A public interest project**

**An assurance for future generations in a world of uncertain developments**

**Reversible disposal for at least 100 years**

**Support for local development**

**Continuing dialogue and consultation with society**

**1991**

Act passed defining three areas of research for management of the most highly radioactive waste.

**2000**

Start of construction of Andra's Underground Research Laboratory.

**2005**

Andra concluded that deep geological disposal in Meuse/Haute-Marne is feasible and safe. Validation by ASN and other experts and assessors.

**2006**

Act passed adopting reversible deep geological disposal for the most highly radioactive waste.

**2016**

Safety options file delivered to ASN and act passed concerning terms of creation of Cigeo and its reversibility.

**2022**

Decree declaring public utility of Cigeo project.

**From 2023**

Review of the Construction Licence Application File for Cigeo by ASN

**Around 2027**

Start of construction of Cigeo, if project is authorised.  
Start of industrial pilot phase.

**2035–2040**

Authorisation of commissioning by ASN for continuation of the industrial pilot phase with handling of radioactive waste packages.

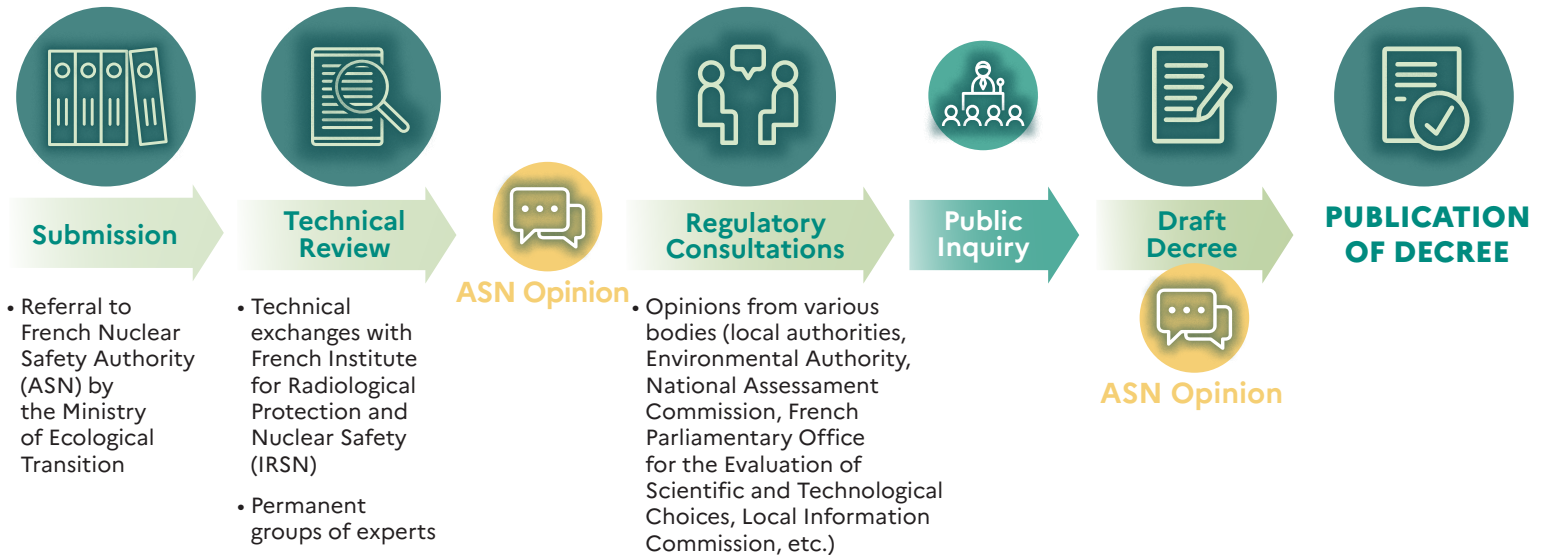
**2040–2050**

Act to specify conditions for continuation of disposal after the industrial pilot phase and authorisation of full commissioning by ASN.

**2150s**

Act to authorise permanent closure of the disposal facility.

# Review of Construction Licence Application: how does this take place?



The review of the construction licence application could take **three to five years**.

## The support file for the construction licence application

This is a large volume of about 10,000 pages, prepared by Andra teams. It is made up of 23 documents. For example, it includes the description and the development plan for the disposal facility, some legal, administrative or environmental documents, the safety demonstration, risk management study and consultation. **This file includes several major documents:**



### PRELIMINARY VERSION OF SAFETY ANALYSIS REPORT

It provides the nuclear safety demonstration for Cigeo during its operation and after its closure. In particular, it defines and deals with accidents that could occur during operation: types of accidents, potential effects, and measures envisaged for preventing them or reducing their likelihood and their impact. Objective: to ensure that their consequences have no effect on people or the environment.



### IMPACT STUDY

Updated following the application for declaration of public utility, this specifies the current condition of the environment and the expected consequences - positive and negative - of the project in terms of every aspect of the environment (atmosphere, soil, subsoil, water, natural environment, human environment, etc.). It also presents all the measures implemented by Andra to prevent, reduce and offset these impacts.



The file also includes the first edition of the **Master Plan for Operations**, which provides a snapshot of the project, its governance and its prospects for deployment. This document describes certain major features of Cigeo (waste inventory, industrial pilot phase, reversibility, costs, memory, etc.). This is a tool for dialogue with the public.