OPENING TO THE PUBLIC: HYBRID FORUM OR REPRODUCTION OF A TECHNICAL DIALOGUE BETWEEN EXPERTS?

Study of a public opening device: the Cigeo Project Security Options File

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Nuclear safety and civil society participation: a gradual and "controlled" opening

- At the beginning: a "small world of safety" that evolves in closed and discreet spaces of discussion and negotiation;
- Chernobyl, its cloud and the longterm consequences on public openness and transparency;
- Since the mid-2000s in France, attempts to open up to civil society have been made: the creation of CLIs, HCTISN, the experience of the DOS CIGEO...
- Participation is most often on technical topics: few incursions on governance topics

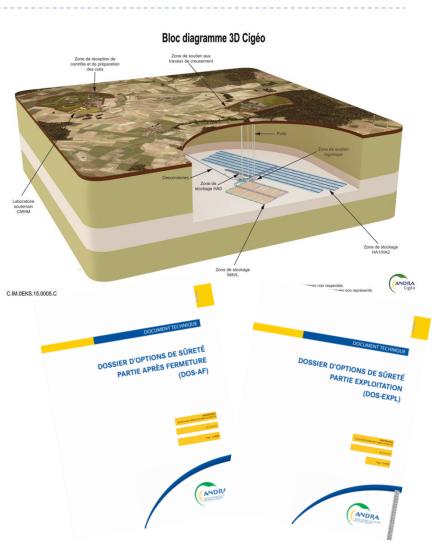


Nuclear safety and civil society participation: analysing the "overflows" of the framework

- Numerous studies on accountability (Garfinkel, 1967; Harré, 1975...)... and more recently on risky activities, particularly nuclear (O'Connor & van den Hove, 2001; Bermans & al, 2015; Fassert & Hasegawa, 2019)
- A model of technical democracy and hybrid forums (Callon, Lascoumes et al, 2001) that promotes the full openness of socio-technical debates to civil society
- But how does "public participation" in technical exchanges actually work?
- Our objective: To analyze the "overflows" (Callon, 1999) of the framework established by institutions, by civil society actors

Description of the "DOS CIGEO" devices

- CIGEO: a long and turbulent history of research into radioactive waste storage solutions (Blanck, 2017; Patinaux, 2017);
- Numerous failed attempts to make civil society representatives participate in CIGEO's main steps;
- In 2016, ANDRA sends the CIGEO project's safety options file (DOS) CAMBERS. 15,0005.C to the ASN;
- An "original" approach to dialogue with civil society launched by IRSN with: ANCCLI, CLIS de Bure, Citizens' Conference and non-institutional experts from WISE-Paris.



An inquiry methodology

- Follow-up of the exchanges organized by IRSN with civil society between October 2016 and July 2017;
- Observation and recording of 5 days of meetings;
- Some 40 interviews with participants in the process: civil society representatives, non-**IRSN** institutional experts, experts, etc.
- Organization of several steering committees to present the results of the present study to the stakeholders who participated in the process





2nd Case: Shaft vs Ramp

Analysis of the 1st Overflow: the project costs

SC1: I have a general question that relates to all the questions, and that's the cost. How can we talk about security options if we do not correlate a cost? A final cost was decided: \$25 billion, a figure given by the Minister. How can we be sure that we will not exceed this cost when we combine all these safety options? If you don't look at this in the DOS, who will?

IRSN: The cost is clearly not in our analysis because we do not have the skills. [...]It is legitimate. We can give the safety aspect. That is, there are conditions that will appear sine qua non, if the project must continue it is under certain conditions. Then the financing, then it will go through ANDRA. There should be a commission, which will look into the matter. This committee met.....

SC1: Never, I think.

IRSN: Only once, but she made a report. But clearly, I agree on the substance, but typically, this is not our field. We can't tell you: it's going to cost so much.

2nd Case: Shaft vs Ramp

Analysis of the 1st Overflow: the project costs

ENI: In the instruction itself, the way it works is that ANDRA, in its technical options, obviously makes optimization choices. Choices that are made on the number and length of galleries, on the type of cap etc. are obviously guided choices, uh... by uh...

SC: Optimization, let's say. [...] So I'm going to ask my question differently: does **optimization** jeopardize safety?

IRSN: We are asking ANDRA to present us with the different alternative options, which was clearly in the options report, saying in relation to this optimization, there are several possible options, present us with the advantages and disadvantages in terms of safety. If in the end there are almost equivalent results, there is no reason to take the most expensive option, and if there are very significantly different results in terms of safety, it will be necessary to draw the consequences.

ENI: IRSN's instruction, even if IRSN only looks at safety, must not only verify that the options proposed by ANDRA meet safety requirements, but must also question the optimization, from the point of view of optimization with regard to safety.

2nd Case: Shaft vs Ramp

Analysis of the 1st Overflow: the project costs

The case	Why is it not part of the framework?	What happens?
asking IRSN to look at	The slow historical separation of "expertise" (IRSN) and decision-making (ASN) has led the experts to no longer concern themselves with economic issues	- A reformulation around the issue of optimization by an

Introduction

2nd Case: Shaft vs Ramp

Analysis of the 2nd Overflow: shaft vs ramp

IRSN 1: We continue to examine certain aspects of the ramp: will we be able to dig it out well, with the required requirements in terms of minimum damage, etc., and it is this aspect that is in the current instruction. In the current investigation, there is no return to the choice of shaft/ramp.

SC 2: I have a technical question: I have always heard from ANDRA that digging with a rock breaker was less traumatic for the rock than digging with a TBM (Tunnel Boring Machine). Will IRSN study this and perhaps tell us tomorrow that digging with a TBM is acceptable? While we know well that if we do it on a rocky breakwater, it will be less significant and therefore safer. I would like us to develop this question and answer it.

IRSN 3 : [...] We are not sure, we ask ANDRA to make a report. Even ANDRA is not certain. The TBM has comparative advantages that the rock breaker does not have.

Introduction

The case	Why is it not part of the framework?	What happens?
IRSN experts present two technical solutions (shaft and ramp) in the form of comparisons		maintain in an exchange with civil society - In fact, a comparison between shaft and ramp

Conclusions and discussions

CIGEO DOS

▶ These cases show that the different formal frameworks are questioned by civil society, which does not accept any borders / taboos

2nd Case: Shaft vs Ramp

- Civil society representatives are more interested in the peripheries of expertise than in its technical details: economic issues, governance and accountability issues, etc.
- Even if a step is taken, we are far from a "hybrid forum" here and some civil society representatives remain quite frustrated with the discussions
- This case study could make experts reflect on their profession as "dialogical" experts, more in touch with the expectations of civil society