



# Decommissioning as a Step Forward for Risk Governance

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## Decommissioning as a Step Forward for Risk Governance

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**Decommissioning** represents a new problem for risk governance as it **implies two contradictory strategies**. First, the disassembly, transport and destruction of contaminated machines and buildings imply foreseeable risks. For them, we use anticipation strategy (Wildavsky, 1985), which consists of technical arrangements, rules and norms. But at the same time facilities are not in fully determinate states: unexpected events are to be expected (IAEA, 2016), such as unknown material encountered, failure to identify uranium in safety analysis, identification of contamination in a non-radiological area, handling materials before their identification... For these events, we need resilience strategy (Wildavsky, 1985), which consists of sharp managerial and technical skills and dynamics of discussion.

However, **literature cannot currently tell how risk governance can articulate anticipation and resilience**. To do so, I study the case of the "technical dialog" (proposed as an ideal type of anticipation) contributing to the nuclear risk governance in France, by the IRSN assessing the safety demonstration produced by a nuclear operator to get an authorization to dismantle a facility. I study heavy handling activities, which are very common in decommissioning operations (proposed as an ideal type of resilience), searching for dexterity and skills developed by workmen and how managers maintain them. I then compare these two fields to find out how anticipation and resilience are articulated.

I use a pragmatist approach (Eydieux, 2017) in order to distinguish whether actors practice organizing by authority (criteria is an individual, a group or an organization), by theory (based on narratives, ideas or verbalizations), or by inquiry (dialog with other people and/or a situation). In the technical dialog, I study a nuclear operator (demonstration case) and the IRSN (assessment case) processes. In heavy handling, I study manager and workmen activities. It appears from my results that **anticipation and resilience are articulated through a convergence of doubts initiating inquiries in risk governance and high-risk operations**.

### Adding Thoughts

This way of articulating is almost done in the first case and done in the second one.

		<b>Demonstration:</b> spaces and rope workers	
		Theory	Authority
<b>Manager:</b> finding place in the factory	Inquiry	<b>Theory</b>	<b>Authority</b>
	Authority	<b>Authority</b>	<b>Authority</b>
		<b>Assessment:</b> skill management	
		Inquiry	Authority
<b>Workmen:</b> talking about one skill	Theory	<b>Theory</b>	<b>Authority</b>
	Inquiry	<b>Inquiry</b>	<b>Authority</b>

### Arranging Imprecisions

This way of articulating also is almost done in the first case and done in the second one.

		<b>Demonstration:</b> underspecified coordination	
		Theory	Authority
<b>Workmen:</b> organize from the part's shape	Theory	<b>Theory</b>	<b>Authority</b>
	Inquiry	<b>Theory</b>	<b>Authority</b>
		<b>Assessment:</b> not fully defined documents	
		Inquiry	Authority
<b>Manager:</b> using forms to coordinate	Authority	<b>Authority</b>	<b>Authority</b>
	Inquiry	<b>Inquiry</b>	<b>Authority</b>

### References

- Eydieux, J. (2017). *Governing risks through doubt: A pragmatist approach of the technical dialog* (Doctoral dissertation, Nantes).
- IAEA (2016). *Managing the Unexpected in Decommissioning*. IAEA Nuclear Energy Series.
- Wildavsky, A. B. (1985). *Trial without error: anticipation vs resilience as strategies for risk reduction*. Centre for Independent Studies.