

SPANISH CASE STUDY OF A RADIOLOGICAL EVENT: HOW RISK COMMUNICATION CAN MAKE THE DIFFERENCE

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INTRODUCTION

- The communication approach during a nuclear emergency can produce changes in risk perception, in risk behaviour, uncertainty (Abbott, Wallace, & Beck, 2006), political effects (Wakeford, 2007), and economical effects (Covello, 2011).
- Media has an important role in radiological event communication and it can trigger emotional reactions and political discussions (Perko, Turcanu, & Carlé, 2012).
- Poor risk communication can create stress, conflict, additional crises and undermine public trust and confidence. Good risk communication can rally support, calm a nervous public, provide needed information, encourage cooperative behaviour and potentially help save lives (Covello, 2011).

DESIGN OF THE STUDY

- **Documentary review**
- **Content analysis of media articles** (N=275)
 - Qualitative analysis (Coded with MAXQDA)
 - Quantitative analysis
- **Semi-structured interviews** (Coded with MAXQDA)
 - Affected population (N=11)
 - Relevant stakeholders (N=13)

OBJECTIVES

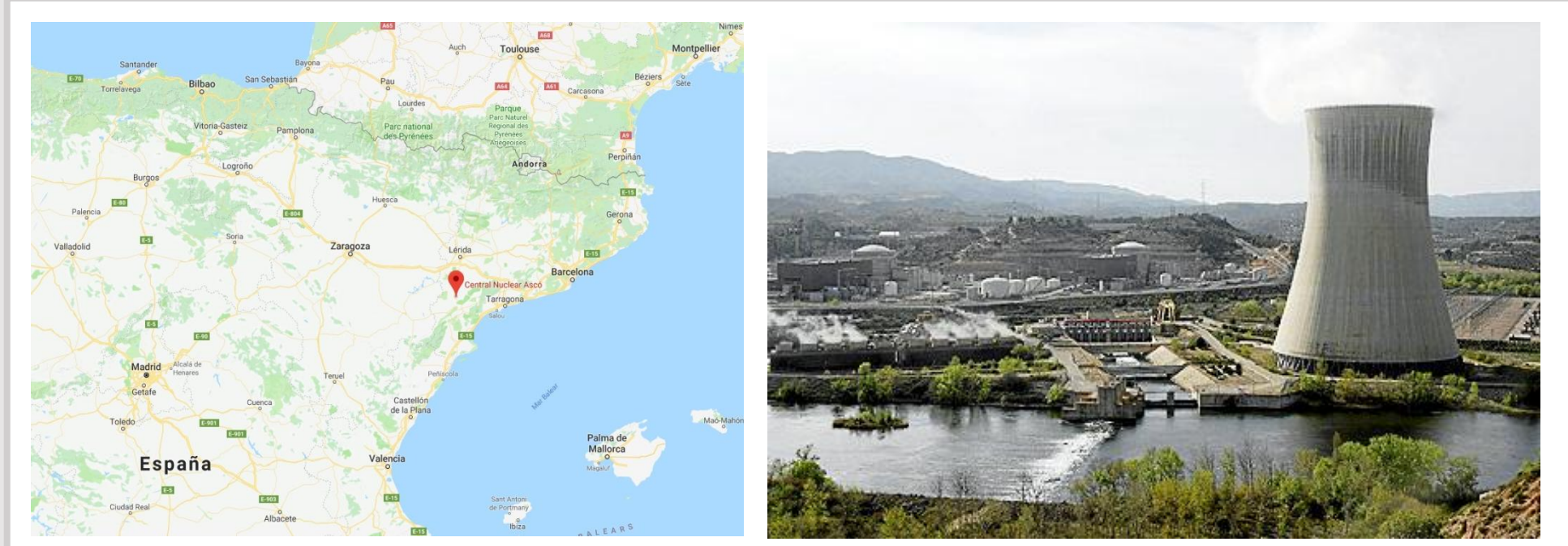
To identify and understand the **communication problems** during and after a nuclear radiological event in Spain.

FINDINGS

Consequences of the incident	279*
(Lack of) trust in nuclear management	97
Complaints / Fines / Economic costs	90
Changes in safety protocols and emergency response	50
Clean up works	22
Cessations	20
Communication aspects	266
(Lack of) transparency	110
(Lack of) information	76
Delay in communication	32
Contradictions between the messages of the different stakeholders	25
(Problems with) communication channels	21
Excessively technical information	2
Uncertainties related to the effects of the incident	241
Health risk and effects	113
Health exams	82
Environmental risk and effects	33
Impacts in the region / Stigmatization	13
Uncertainties in the management of the incident	200
Deficiencies in the management procedures / Negligence	105
Causes of the incident: Safety culture / Human error	64
Response time	11
Causes of the incident: Functioning of the surveillance systems	10
Causes of the incident: Economic interests	10
Technical uncertainties	169
Magnitude/Severity of the leak	84
Range of the leak	79
Difficulties in the measurement	6

* Number of times an uncertainty has appeared in the news articles

CASE DESCRIPTION



- The event was originated in an operational incident occurred at the end of the 19th outage of Ascó NPP Unit I during November 2007.
- Consisted in the release of significant amounts of radioactive particles with activated corrosion product isotopes, through the discharge stack.
- The detection of the release and **its subsequent notification** to the Spanish Nuclear Regulatory Authority (CSN) **took place four months after its occurrence**, on April 4th 2008.
- The incident was initially classified as a Level 1 in INES Scale but it was raised to Level 2 due to an inadequate control of radioactive material and of providing incomplete and deficient information to the regulatory body.



FINDINGS

LACK OF TRANSPARENCY FROM THE NPP

Some interviewees perceive that information was hidden from the public and stakeholders by the NPP managers.

“We are disappointed. We have given inadequate information because we relied on incorrect information from the NPP.”

The director of the school that visited the NPP declared to feel ‘hurt’ by the lack of information.

“The information I received was neither complete nor clear because they said nothing had happened.”

DELAY IN THE COMMUNICATION OF THE INCIDENT

Information was provided to the regulatory body by the NPP managers five months after the leak occurred.

“Business Association admits that there has been a communication problem. The leak occurred on November 26 and was only notified on April 4.”

“I do not remember how I found it out, maybe by the media.”

CONTRADICTION BETWEEN MESSAGES

Local affected population perceived a contradiction between the messages given by the different stakeholders.

“Ascó NPP and CSN claim that there has been no risk to people while Greenpeace called it into question.”

“And... there was a great disparity between what some sources said to me and the others.”

COMMUNICATION CHANNELS

The communication channels between the NPP and the local authorities were perceived as insufficient or inexistent by some mayors and local authorities in the proximity of the NPP.

“The Mayor of Flix regretted the few communication channels that exist between the town hall, the NPP and the Nuclear Safety Council.”

“I (a journalist) informed the mayor of Flix that this had happened.”

CONCLUSIONS

- The competent authorities should provide transparent, timely and accurate information about a radiological incident.
- The communication channels between the NPP and the national and local authorities should work properly, be well known by all stakeholders and follow an accurate protocol.
- It is important to implement proactive and engaging communication strategies to build trust among the public.

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