Ten Years of Public Acceptance Experience in Transports

Europe and Coastal States Between France and Japan, Examples of Central and South America

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Status of French int’l Transports

- Nine shipments to Japan (68% of the total casks to be returned):
  - January 1995: 1 cask
  - February 1996: 2 casks
  - February 1998: 3 casks
  - April 1999: 2 casks
  - February 2000: 4 casks
  - February 2001: 8 casks
  - December 2001: 6 casks
  - June 2003: 6 casks
  - January 2004: 5 casks
- Six shipments to Germany (35% of the total casks to be returned)
- Seven shipments to Belgium (50% of the total casks to be returned)
- Four shipments to Switzerland (25% of the total casks to be returned)
Coastal States in Central and South America

- Panama
- All Caribbean Island States
- Brazil
- Uruguay
- Argentina
- Chile
- Peru
Regional Organizations

- CARICOM
- ACS/AEC
- OAS
- OPANAL
- CPPS
10 + years of PA

- Shipments of Spent fuel, Vitrified waste, Plutonium, Fresh MOX fuel.
- Road, Rail, Sea
- A multinational Challenge:
  - the transport actors: in Europe 2, to/from Japan 3 (COGEMA, BNFL, ORC)
  - the Coastal States between E and J: no benefit expected, only negative possible outcomes feared (political inconveniences, grave incident consequences)
The PA Actors

- Engineers, Scientists, Managers, Lawyers
- Communication Officers,..

Communicating with:
- Legislators, Administration Officials
- General Public, Journalists, Activists
What are the motivations of

- Administration Officials: they are after reasons to take a position (best case)
- General Public: understanding, to be reassured (they have heard scary tales)
- Journalists: they want NEWS
- Activists: they are after US
Lesson 1: Risks Communication

ACCIDENTS HAPPEN

- Rational approach to risk: Probability of an accident $\times$ potential damage **does not work**
- Safety is perceived as the way to reduce accident probability, but still...
- We must assess the consequences: a train derails, a ship transporting nuclear material sinks in the ocean, what happens? (damage, recovery, compensation)
Lesson 2: Dealing with General Public and Administrations in States non-familiar with Nuclear

- Avoid being too technical:
  - Numbers don’t speak
  - Ten to the minus 19 !!!!!!
  - 1/1000000…0000 is not zero
  - Units are obscure
  - References to IAEA, IMO, …are only good to a point
  - Use Analogies: the tiger, the shark...
Lesson 3: Dealing with Activists

- Activists are active, imaginative, and have no restraints: ultimate scenarios, frightening words: accident waiting to happen, the unsinkable Titanic, floating Chernobyl, perfect choice for terrorists, ...

- Avoid direct debate

- Going to Court

- When it comes to “demonstrations” (F, G Panama): Security concerns, a real danger for demonstrators.
Lesson 4: Dealing with Journalists

- Confidence building (Project Evidence)
- Be proactive (speak out before others do)
- Respect them (they know their job)
- Don’t lose their time (deadline)
- Have usable information material handy
Lesson 5 : Money matters

Discussion has evolved from zero risk to very low risk to controlled risk to emergency measures to salvage and recovery and clean-up, to...insured damages:

- Liabilities
- Financial Compensations

Economic Damage (non-nuclear incident)
Lesson 6 : Overall acceptance

- There is a whole interacted “Soft System” around the hard logistics of nuclear transports, involving Safety, Security, Liability, Public Understanding, Activists Interactions, Political Acceptance, that we call GA: Global Acceptance.

- Challenge: the various actors from Govt and Industry must work closely together.
Nuclear Transport: Safety in Depth

Solid Material  |  Massive Steel Casks  |  Purpose-Built Ships

BNFL  |  COGEMA  |  ORC
Pacific Sandpiper
International Regulatory Tests for Type B Casks

- Drop from 9 m onto an unyielding surface
- Drop from 1 m onto a punch bar
- All-engulfing fire at 800°C, 30 min
- Immersion up to 15 m

BNFL  COGEMA  ORC
Environmental Assessments

- Environmental impact assessment discounts sealing capacity of cask on seabed
- Maximum radiation dose to the public of 0.000001 milliSieverts (mSv/yr) a year
- Barely measurable compared to average natural radiation levels (2.4 mSv/yr)
- Equivalent to less than 1 minute of flying time