



PUBLIC ACCEPTABILITY FOR INTERNATIONAL SEA SHIPMENTS OF HIGH LEVEL WASTE AND MOX FUEL

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ABSTRACT

Over the past two decades, nuclear fuel cycle companies have successfully delivered on their business commitments despite heightened public scrutiny of recycling, waste management and the associated international transportation activities and campaigns by opponent groups.

One critical factor in this success has been the way in which fuel cycle companies have addressed public acceptance. The companies have taken responsibility for actively promoting public understanding of the benefits of the fuel cycle and the safety and physical protection regimes that are in place.

By putting the business in its proper context, and by being prepared to disseminate information in littoral countries, the companies have been able to provide reassurance and perspective. They have also maintained a flexible approach by constantly developing communications tools and messages that have demystified the industry and cast it as, in many ways, like many others that attract little or no public controversy.

Through this public acceptance activity, the companies have reached out to different audiences in more than a dozen nations, including government officials, regulatory bodies, academics, associated businesses and journalists.

The companies recognize that this commitment to providing information must be on-going to ensure that the most positive perceptions of fuel cycle operations are maintained.

INTRODUCTION

Over the past two decades, European nuclear fuel cycle companies have successfully delivered on business commitments to reprocess spent nuclear fuel from domestic and overseas reactors, condition and return high level waste (HLW) and manufacture and deliver fresh mixed oxide fuel (MOX). The result has been the closing of a “clean nuclear fuel cycle”, with uranium being re-used, waste products being safely isolated from the environment and operations taking place in a tightly regulated and controlled manner.

This clean nuclear fuel cycle has been made possible by the capability to safely transport nuclear material – spent fuel, vitrified waste and fresh MOX fuel – by land and sea. Without the transportation link, none of this could have happened. In this respect, capability refers to both the technical ability to conduct the transport, in terms of physical hardware, equipment, licenses and personnel, and the ability to do so with informed public consent. It is this latter feature that is the focus of this paper.



PUBLIC PERCEPTIONS

It is well-known that reprocessing, waste management and the associated international transportation activities attract public scrutiny through the campaigns of opponent groups. In some ways, nuclear energy is no different in this regard to many other industries today that also attract some level of organized public opposition. However, the public risks that are alleged to exist can present unique and sizeable communications issues. After all, concerns can be raised about extreme catastrophes such as widespread nuclear contamination and nuclear terrorism.

The depth of this public relations challenge can be illustrated by two recent examples where negative comments arose. In both cases, electric utilities planned to ship material that was contaminated with low levels of radioactivity. Also, in both cases consultation had taken place with regulators.

In July 2010, news organizations began reporting that Bruce Power in Canada was planning to ship sixteen steam generators from a nuclear power plant to Sweden for recycling. The news ignited a volley of ill-informed concerns about the risks to the drinking water in Lake Huron and the wisdom of shipping nuclear materials by sea.

Second, in 2004 a plan by Southern California Edison to transport a decommissioned pressure vessel to a disposal site in South Carolina via Cape Horn was abandoned after safety concerns were raised in South America.

By way of contrast, over the past fifteen years, the nuclear recycling companies have successfully and safely completed nearly twenty voyages of HLW and MOX between Europe and Japan as well as a plutonium shipment from the United States to France and a MOX shipment back to the United States. Many other transports of nuclear or radioactive material have also safely taken place around the globe with relatively little controversy.

THE COMMUNICATIONS DILEMMA

IAEA physical protection recommendations as they relate to shipments of HLW and MOX shipments are designed to limit what information becomes public knowledge. This presents a dilemma in terms of public perception, where secrecy can be taken to imply safety shortcomings and can be used by opponents to generate controversy.

Nuclear fuel cycle companies have addressed this dilemma in three ways. First, they provide a good deal of general (non-voyage specific) information through the PNTL website (www.pntl.co.uk), fact sheets, information files, DVDs, and other information tools. This covers the design of the purpose-built PNTL INF3 ships, the packages and the material itself. Second, they publicly release carefully designated voyage information according to a pre-agreed timetable, covering voyage preparations, departure, approximate route and arrival. Releasing this information in this way does not compromise security for the shipments. This is supplemented by government to government contacts. Third, they have engaged in a long-term proactive programme of briefings to targeted audiences in littoral states, primarily focused on providing information to government officials.



INTERNATIONAL FUEL CYCLE SHIPMENTS

One critical factor in the success of the transports between Europe and Japan has been the way in which the companies involved have addressed public acceptance, by proactively meeting with government officials, briefing them on the shipments and answering their questions.

On one level, opposition – even by governments of nations adjacent to the routes – to our HLW and MOX shipments could be held to be of little practical importance. After all, these shipments take place on the high seas, beyond any territorial jurisdiction. The shipments therefore have the right to proceed lawfully without any impediment. Similarly, the arguments of opponents could simply be dismissed since they are often inaccurate and either ignore or misrepresent the safety and physical protection systems employed.

However, the companies take a notably different view. They believe that they have a responsibility to actively promote public understanding of the safety and physical protection measures that are in place and the benefits of the nuclear fuel cycle. They believe it is incumbent on them to explain how the shipments are carried out safely and securely and to answer questions from government officials and the media.

2010 was a relatively busy year for us because there was a shipment of HLW from the UK to Japan – the first to travel from the UK – followed by a shipment of MOX fuel from France to Japan. The former traveled via the Panama Canal and the latter around the Cape of Good Hope and through the south west Pacific.

As this was the first HLW shipment from the UK, International Nuclear Services and Sellafield Limited provided advance information to local politicians, including local government officials, in the areas where the operations were taking place, such as the plant and the port.

Over the years, the companies have invested considerable resources in Panama and established good relationships with government officials, journalists and other key opinion formers. Since the last of twelve HLW shipments from France had taken place, there had been a change of government in Panama and also changes in some of our own senior management positions, so we undertook a visit to meet with ministers and legislators. Further meetings subsequently took place when the shipment passed through the Panama Canal and a group of legislators visited our facilities in Europe in June 2010.

Aside from all these personal contacts, experience has taught us that the first of anything in our business can lead to a more negative public perception being generated by opponents. A determination was made well in advance of this HLW shipment to refer publicly to this shipment as the thirteenth in the programme of returns from Europe to Japan, rather than the first from the UK.

A similar political situation existed in South Africa, where elections had taken place since our last MOX shipment and a new set of officials needed to be provided with information. Again, this was done proactively several months ahead of departure, with the aim of ensuring there were “no surprises”.

Briefings were also held with the New Zealand government and officials from the Pacific Islands Forum at the time of the shipment. It should be stated here that the previous MOX shipment had



experienced an unusual event with the failure of one of the two independent diesel engines on the Pacific Heron. This had not impacted the safe completion of the voyage but it was an event that we recognized could be of potential interest overseas. In the event, the New Zealand government in particular asked a lot of questions about the engine failure and about a storm which had occurred during the same shipment. Since we had the Master from the Pacific Heron with us for these meetings, he was able to give detailed accounts of these separate events. It is our belief that by providing this type of information, being proactive, maintaining contacts between shipments and basing company representatives in these countries during shipments, we help to establish strong and enduring relationships. This has allowed us to place the shipments, and the nuclear industry as a whole, in a full and proper context.

Both of these 2010 shipments completed their voyages with almost no media attention and with very little negative comment in littoral states.

CONCLUSIONS

By being prepared to disseminate information in littoral countries, the companies have been able to provide reassurance and perspective. They have also maintained a flexible approach by constantly developing communications tools and messages that have demystified the industry and cast it as, in many ways, like many others that attract little or no public controversy. General information on nuclear shipments, and greater context, is provided by WNTI.

To some extent the responsible path of proactively providing information is self-serving. The alternative is that interested parties may first find out about the shipments when they read a newspaper, or when they are contacted by a journalist for comment. Ignoring or simply dismissing concerns raised by opponents carries its own longer-term risks, in terms of possible changes to the regulatory environment or unilateral actions against the shipments.

Through their public acceptance activities, the companies have reached out to different audiences in more than a dozen nations, including government officials, regulatory bodies, academics, associated businesses and journalists. And while there are financial costs involved in being proactive, they are substantially less than those that could arise from the imposition of unwarranted restrictions on the shipments.

In some ways, the public acceptance work is like an insurance policy that ensures the shipments are not severely hampered if there is a campaign by opponents to stop them. Whether or not those opponents target particular shipments, the public acceptance work must go on, just as insurance premiums are paid whether or not a claim is made. In short, the companies recognize that this commitment to providing information must be on-going to ensure that the most positive perceptions of these fuel cycle and transportation operations are maintained.