

# Public Perceptions of Hex Transport

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Stand in the middle of Dam Square in Amsterdam, or Trafalgar Square in London, and ask a cross section of the public-at-large what they think of UF<sub>6</sub>. I wager that one would be met overwhelmingly by blank stares or a quizzical; “UF what?” Refine the question, replace UF<sub>6</sub> with Hex, and the results likely would be the same. So then, let’s try “uranium hexafluoride”. Now, maybe we get a few flickering sparks of recognition – “Did you say uranium?” Here you start to get some scattered views; most people, of course, having heard of uranium. Let’s move on, then, with our survey; what about, “nuclear fuel”. At this juncture you can expect to start getting quite a number of decided views; views inevitably influenced by perceptions about the merits, or otherwise, of nuclear power generation.

The fact is, those of you in this room have devoted more attention to one part of the fuel cycle chain in the past three days, than the average person on the street will do in a life time. And yet, that same person on the street probably will hold views, perhaps strongly held views, on nuclear power. Those views will be based on some facts picked up largely from the media, and tempered by a mix of beliefs and attitudes to such matters as the virtues of nuclear power in the climate change debate, concerns about the legacy of nuclear waste and its safe management, worries about safety and security. Within the nuclear industry, engineers and scientists deal daily with empirical knowledge, working in the realm of facts, and proof through experimentation and test.

Most people, however, not immersed in a particular subject, have fairly short attention spans. They pick up snippets of information from the media, from casual conversations, but on the whole they don’t take a lot of time to look deeply into matters that don’t form a substantial part of their daily lives. And so, views are formed as much by beliefs, attitudes, and values as by facts. People ask themselves whether something feels right. Does it seem appropriate or just? Indeed, sometimes people

can be a bit impatient with too many facts. In such cases the so-called expert can sound like a “know-it-all”, coming across as patronising, remote, or just plain boring. We live in a media age of instant sound-bites, of the catch-phrase; information and attitudes reduced to as few words as possible; it’s the impression that counts.

It has been suggested that it is important to reduce the level of ‘emotion’ in the nuclear debate. However, there is a contrary view – that to remove ‘emotion’ from the debate may, in fact, create a barrier between the communicator and their audience. After all, we live most of our lives in an emotional way, and the more the nuclear industry portrays itself as being different from society as a whole, the higher the likelihood that trust, based on empathy and shared values, could be undermined.

More particularly, when it comes to the transport of nuclear fuel cycle materials, issues of safety and security are those one most often hears mentioned. In a way it seems odd that safety should be such a generalised concern when one considers the outstanding safety record of nuclear transport over several decades, with no radiological incident causing substantial damage to health or the environment. But those are the facts; what do people feel? People do express concerns about nuclear transport; why should this be? I suspect it has quite a lot to do with the reality that the transport part of the fuel cycle carries nuclear materials out on to the highways, railways and sea lanes of the wider community; so more people feel more personally threatened.

Interestingly, an incident anywhere in the nuclear industry, or indeed beyond, into the wider radioactive materials field, can have a direct impact on public impressions of nuclear transport. Witness the recent polonium 210 incident in London – not a transport story really, except on the margins, but a sensational reminder to the public, nonetheless, of just how dangerous radioactive materials can be; the

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impact made all the more potent because of the sinister aspects of the case. Similarly, heightened security concerns in recent years surrounding the potential for so-called “dirty bombs” involving radioactive material clearly have made people more sensitive to the possibilities of terrorist attacks against Class 7 transports.

You can give people all the facts you like about the actual low risk of compromised packages, or of the likely small damage if there was such compromise, or of the greater subsidiary, non-radioactive, risk; but so long as that emotive word “radioactive” is attached, then the feelings and the attitudes well up. The images of mushroom clouds and cups of tea poisoned with polonium 210 cloud the true facts.

It is striking that several issues in society which involve the interface between science and politics present a very similar profile. Examples include mobile phone masts, genetically modified organisms, road building, the development and use of certain vaccines. To take but one example, a few years ago, in the run up to Christmas, the British newspapers were full of scare stories about the potential health hazards of mobile phones, particularly to the developing brains of children. But guess what, those same newspapers reported a few months later that the largest single gift purchase that past Christmas, with millions sold, was the mobile phone.

Researchers have surveyed the public about those things they consider as more or less risky. Not surprisingly perhaps, nuclear power rates fairly high up on the risk scale. Swimming, on the other hand, is quite far down. How many people are killed each year from nuclear power, or from swimming? There are organised campaigns to block nuclear power. I’ve never heard of a movement to ban swimming. I suspect among the major reasons for this phenomenon is the fact that swimming, or smoking, or using mobile phones, are entirely within the control of the individual – in each case the individual is in charge of his or her own destiny. This would suggest that the real issue, at least to some extent, is not about the particular aspects of the subject in question but about wider societal issues such as the equitable distribution of risk, the balance between benefit and risk, local autonomy and ‘who decides’.

Those things that seem too big, too far beyond personal choice, look more threatening. Combine this with longstanding perceptions about the potential devastating consequences of radioactivity to health or the environment, and you have the recipe for an anti-nuclear bias.

I can’t stress too strongly, the link between perceptions of benefit to perceptions of risk. For the average person, the perceptual link between transporting radioactive materials and electricity coming from a wall socket is at best somewhat tenuous, as are the claimed benefits in terms of, say, reducing climate change.

This has important implications for industry communicators. If an activity has no obvious benefit, either in a wide sense or more directly for those most affected by it, then whatever the level of risk involved, such risk is likely to be regarded as unacceptable. If an activity – say the transport of radioactive materials – is not put into the wider context – it is likely that building public acceptance will be much more difficult.

At the end of the day, however, does it really matter what the uninformed, or ill-informed, think or feel about nuclear transport, so long as the experts know it is safe and secure, and the means to transport remain available? It most decidedly does matter. To take one notable example, one of the very reasons why it is getting more difficult to find transport options on some routes is because of the perceptions, or misperceptions, or lack of understanding, about the hazards of the materials, the regulatory requirements, the safety and security features of consignments, among those who own or run the liner services, among port authorities and handlers, the insurers.

So, what to do in the face of misunderstanding, or plain lack of knowledge about Class 7 transport? Well, first of all, lack of information, or misinformation, must be replaced with facts. Yes, there still is a place for facts, but for those facts to be taken on board, they should be expressed clearly, simply and convincingly. Industry clearly is doing a much better job today than in years past in putting its case across; communications need to be an integral part of the business plan, not an optional extra.

Transport regulations should be straight-forward, easy to understand, interpreted consistently from one jurisdiction to another; they should be cost-effective. Too often, regulatory requirements can seem onerous or complex, having the affect of putting off potential service providers.

## Summary

Along with the facts, industry needs to respond to the way people at large, the politicians, the media, process information – through the lens of beliefs, attitudes, and feelings. Can it be imagined that those in the industry are any less concerned about safety and security than anyone else; after all, who would be most immediately at risk from a safety or security breach? Aren’t we all part of local communities, with family and friends; why wouldn’t we in industry be every bit as concerned about the welfare of the wider community than anyone else? The “antis” don’t have a monopoly on virtue. It is at this level, I suggest, that we need to modulate our messages.

We have to be every bit as professional in communications as those groups who are opposed to nuclear power. Correct misinformation, acknowledge failings when they are made, be transparent. And trust in the common sense of the community at large; we only ask that the case for nuclear be heard; we have confidence that it will hold its own in the great public debate.

Industry's voice stands a better chance of being heard, when it is heard as one. That is what the World Nuclear Transport Institute (WNTI) is all about – it is a vehicle for industry to come together, to share concerns and ideas, and to come up with consolidated positions and messages to carry forward. We look for greater stability and more standardisation in regulation worldwide; it is no less incumbent on industry to strive for greater standardisation, learning from best practices of each other, all in the interest of enhanced safety, reliability and cost-effectiveness. This sort of collaboration need not be at the expense of competitive interests. That has been demonstrated in the excellent work done in the WNTI HEXT Industry Working Group, led by Ben Dekker.

So, to conclude, public perceptions of Hex transport do count. Most people probably don't think deeply about Hex transport but when they do, they want reassurance that it is being done safely and securely. Facts must be presented that take account of the wider context, and in ways that are meaningful by being seen to respond to the wider public's interests. Our industry must be prepared to acknowledge when and why things sometimes go wrong; it must be prepared to answer sometimes awkward questions of public concern. It is our responsibility to ensure that the case is made in a way that is convincing. We maximise our possibility to gain understanding and trust when we make a conscious effort in conveying accurate information to touch people at their level of beliefs, attitudes and values.

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