Talking My Language

As the nuclear industry goes global, communication becomes a bigger challenge.

by Serge Gorlin

"It's like the United Nations here!" has become a familiar cry in offices and industrial plants around the world. Today, companies competing in global marketplaces seek the most talented staff and local knowledge by employing from an international rather than a local labour pool. This shift towards multinational personnel has been facilitated by the emergence of English as a global common language, which, unlike previous "world languages", has penetrated all continents and all levels of society.

The nuclear industry has been no exception to this internationalizing trend, despite its roots in many countries in national military programmes. Contributory factors have been the worldwide liberalization of energy markets and the slowdown in nuclear power development during the 1980s and 1990s, following the Three Mile Island and Chernobyl accidents. Faced with economic pressures, companies cut costs by slimming workforces and employing more contract staff, both domestic and overseas. The need to rationalize also led to a spate of nuclear company mergers and acquisitions from the late 1990s. Examples of these were the BNFL (British Nuclear Fuels) takeover of the Westinghouse Electric Company in 1999, followed a year later by the purchase of ABB's nuclear businesses in Sweden, Germany, France and the US.

In early 2001, Framatome and Siemens merged their nuclear operations in France, Germany and the US to form the company Framatome ANP. The group went on to acquire Duke Engineering and Services in the US in 2002.

Challenges at a Multinational Organization

The advantages inherent in creating a nationally diverse organization bring with them cultural and linguistic challenges. These can be a barrier to communication even at a cosmopolitan and polyglot organization like the IAEA. Thanks to the seminal research by organizational specialists such as Geert Hofstede, the influence that culture can have on workplace behaviour is well-documented. For example, the degree to which we defer to senior staff, prefer working individually or collectively, or tolerate uncertainty and ambiguity can vary widely according to our background.

This research also showed that the inability to adapt to a multicultural environment by discarding dogmatic views, or by learning to understand the influences that lie behind other people's culture, can lead to frustration and conflict. Another drawback of the multinational environment concerns the need for some staff to communicate outside their native tongue, normally in English. Despite ever-improving levels of English skill worldwide, this entails an increase in the chances of miscommunication—a fact confirmed by an International Civil Aviation Organization (ICAO) analysis of incidents and accidents in civil aviation.

Merging Styles

Case Study 1: **Framatome/Siemens Merger**

The Framatome/Siemens merger into Framatome ANP provides a good case study in how to integrate the staff of two culturally and linguistically diverse organizations.

Pre-merger, cross-cultural team-building workshops were made part of groundwork meetings, where senior managers from both companies came together to discuss the future structure and management of the new company. The workshops incorporated presentations from specialists on the different management styles and organizational approaches prevalent in French and German companies; opportunities were provided to air preconceived ideas about the national character of their new partners.

Post-merger, cross-cultural workshops were also held for other staff as part of international team-building "away days". Because English would be the operating language of the new company, English classes were offered to any staff who felt they needed to improve their skills.

Dr. Ralf Güldner, who was head of Siemen's nuclear fuel business at the time of the merger, and is now Executive Vice-President of Areva's nuclear fuel division, testifies to the value of this training in helping the constituent parts of Framatome ANP blend successfully.

Well-devised activities made staff aware of the challenges they would face, such as the longer meetings (because of language difficulties) or the French management style of taking decisions higher up the chain, which was alien to German and US colleagues. Güldner speculates, however, that things could have been different had the merger not coincided with the nuclear renaissance. If orders had dried up and decisions needed to be taken over redundancies and plant closures, cultural differences may have surfaced.

Overcoming Linguistic Barriers

A number of proven training programmes and services exist for organizations seeking to "go global". Many of these are being used by today's multinational nuclear organizations.

Cross-cultural training can be an effective way of creating better relationships and communication in organizations where cultural differences prevail. The competence it engenders can also promote successful business relations with overseas partners. Through exercises, case studies and realistic role-plays, trainees learn how to avoid ethnocentric ways of thinking or stereotyping of foreigners. Learners, moreover, can improve their ability to deduce cultural influences in peoples' behaviour, helping to overcome cross-cultural barriers. In general, engineers are quite sceptical of this kind of "soft skills" training because of its lack of scientific basis; yet today's businesses routinely use cross-cultural training as part of their strategy for winning business overseas or for setting up foreign offices.

Language training can be another worthwhile investment for a company, not least because learning languages helps develop greater cultural awareness and makes us sympathetic to the problems of communicating in another language. Courses can come in many forms: intermittent or intensive; face-to-face or telephone; one-to-one or group; courses that focus on a particular skill, such as speaking or writing. Because professionals are combining learning with busy working lives, it is understood that learning outcomes cannot be too ambitious; the goal is a good "working knowledge" rather than bilingualism. Tailored language courses, which are becoming standard training products, can provide this knowledge in a shorter time frame by familiarizing students with the language of professional situations, such as meetings and presentations, and the specific terminology of their field.

A novel way of helping communication across linguistic barriers is to train native speakers to make themselves more intelligible to their non-native-speaking counterparts. As anyone who has worked at a multinational organization knows, native speakers of the organization's operating language naturally progress towards slower speech patterns and clearer pronunciation, substituting standard language for idioms and phrasal verbs to avoid repetition. The applied linguist David Crystal has likened this process to becoming bilingual in one's own tongue; in other words, using everyday language with fellow native speakers, and controlled language with non-natives. Training workshops can help native speakers become more conscious of the language they use, helping to speed up the transition to "bilingualism".

Where there is an absence of linguistic common ground, organizations can call upon professional translators and interpreters. Their services are particularly recommended when a high level of accuracy is required in any communication. Interpreters are also known to add value in business interactions such as negotiations or during plant tours, due to their ability to bridge cultural gaps between parties. However, because professional translation and interpreting services are costly, there is a temptation for organizations to "get by" by relying on members of staff with foreign language skills. The limitations of this approach were

demonstrated during a recent WANO (World Association of Nuclear Operators) peer review at Golfech Nuclear Power Plant in France. Here, a project coordinator felt he could communicate directly with visiting engineers. During the discussions, however, he realized that he could not understand some of the accents of the engineers and was not used to speaking English for such long periods.

Further Globalization

With economic pressures driving the globalization of the nuclear industry, and with internationalization of certain proliferation-sensitive fuel cycle facilities being strongly advocated, cross-cultural and English-language competence will become evermore important for managers and engineers at nuclear facilities. This is related to economic pressures driving the globalization of the nuclear industry, and the strong advocacy for internationalization of certain proliferation-sensitive fuel cycle facilities.

Those working in international organizations sometimes forget that such competences are still not the norm in industry, and can be difficult to acquire working on an isolated nuclear facility, remote from multicultural urban centres. They will become more common, as the English language assumes the importance of a basic skill alongside numeracy and literacy in education systems, and foreign travel and migration become more common. In the interim, it is essential that human resource managers offer appropriate training, and that professional translation and interpreting services be provided where necessary.

A good way for future and existing managers to improve their cross-cultural competence, while learning about the various facets of nuclear energy, is to participate in one of the World Nuclear University (WNU) programmes. For example, the six-week Summer Institute (SI) in Daejeon, South Korea in July-August 2007 will be attended by over a hundred young nuclear professionals and graduate students from over 35 countries. This is in addition to the 163 WNU "Fellows" from 40 countries who have attended previous institutes in Idaho Falls and Stockholm. The WNU-SI comprises lectures by some of the world's foremost experts from the IAEA and industry, along with challenging leadership development tasks and technical tours.

Other events being organized by the WNU Coordinating Centre in London for 2007 and 2008 also emphasize participation by a wide cross-section of learners from both developed and developing countries. They include forums for nuclear policy-makers and scientific advisers, and induction courses for executives joining the nuclear industry from other areas.

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Lessons Learned from an Outage

Case Study 2: **Sizewell Nuclear Power Plant**

An unexpected forced outage at Sizewell B nuclear power plant in the UK in May 2001 served to reveal the globalization issues that can arise when different nationalities join forces on a project.

The outage took place very soon after a new consortium called FMA, consisting of two UK companies and a French multinational, won the contract to do maintenance and refuelling at Sizewell. A small Anglo-French team was assembled to carry out the work, which included removal of a stuck reactor vessel stud and repairs to the reactor vessel flange and bolting ring.

Quite quickly, it became apparent to the FMA site manager that there were significant cultural and language issues in his team. First, there were not enough bilingual members of staff to ensure that one could be assigned to each crew. This raised an industrial safety concern for the all-French crews working in active areas, where they needed to be able to understand public address announcements.

To compound the linguistic problems, French workers were not used to the working patterns on a British site, or the different quality assurance systems; this led to frustration and a lack of overall team spirit.

The site manager took immediate action by calling a full team meeting, where his expectations in relation to safety, problem reporting, communication and respect for the cultures of others were made clear. Thereafter an English-speaking person was assigned to each French-speaking crew, whose job was to alert the workers, through pre-arranged hand signals, when there was a public announcement they needed to heed.

A year later, the lessons learned from the forced outage were used for a much larger planned refuelling and maintenance outage. In advance of the outage, a comprehensive induction programme was delivered to all FMA personnel assigned to the project; this included elements of cultural awareness and ensuring effective communication.

Both outages were executed very successfully from an operational and safety point of view. However, the site manager in his report concedes that it was difficult to engender in mixed teams a good rapport, due to language barriers as well as different company and national cultures.