

A role for industry in promoting nuclear security and nonproliferation

BY GRETCHEN HUND,
AMY SEWARD, AND
OKSANA ELKHAMRI

INDUSTRY HAS A unique opportunity and a critical role to play in strengthening U.S. government efforts to prevent the spread of nuclear, radiological, and dual-use materials and technologies (those products and technologies that are normally used for civilian purposes but that could also have military applications) that could be used in a nuclear or radiological weapon. Government regulations and policies are in effect at both the national and international levels to inhibit access to such materials and technologies by illegitimate end users, but the discovery in 2003 of an illegal nuclear network spearheaded by Pakistani scientist Abdul Qadeer Khan spurred international debate about what more could be done to prevent proliferation.

Industry—broadly defined here to include the nuclear, dual-use, and radioactive source industries—is well poised and has a strong incentive to take a more proactive role to complement existing government efforts. Companies within these industries are those that are involved in selling or transferring nuclear or dual-use goods and services (components and technology), manu-

Gretchen Hund (<hund@pnl.gov>) is a senior scientist at the Pacific Northwest National Laboratory, which is operated by Battelle for the U.S. Department of Energy. She supports the National Nuclear Security Administration in nonproliferation and nuclear security research. Amy Seward (<amy.seward@pnl.gov>) is a staff scientist at PNNL working on international security issues associated with the use of nuclear energy. Oksana Elkhamri (<oksana.elkhamri@pnl.gov>) is a research scientist at PNNL specializing in nuclear infrastructure capacity building in the emerging nuclear energy states.

Industry self-regulation can have a positive effect on the prevention of nuclear materials proliferation.

facturers, consultants, trading companies, freight forwarders, export-import brokers, and financial institutions. By increasing oversight of the supply chain, companies can be a tremendous help in ensuring that illicit diversions do not occur.

It is especially important to head off illicit diversions of materials in light of the potential nuclear renaissance, during which substantial increases in nuclear trade are anticipated, raising concerns about a concomitant increase in the risks of terrorism and proliferation. The International Atomic Energy Agency has been approached by nearly 50 countries expressing interest in developing nuclear power, many of which lack the necessary infrastructure and operational experience to manage the related materials and equipment safely and securely. The national governments of these countries have expressed the need to develop the appropriate infrastructure with the help of more experienced governments and international bodies, particularly the IAEA. Industry, however, which is directly engaged in these transactions and operations, can also play a positive and proactive role.

Feedback from industry

Pacific Northwest National Laboratory (PNNL) surveyed 14 companies that produce dual-use items and asked for their opinions on possible “self-regulation” or “industry governance” approaches to help prevent the spread of sensitive materials, equipment, and technologies.¹ Self-regulation—defined to mean a systematic, voluntary program of actions undertaken by an industry or by individual companies to anticipate, implement, or supplement regulatory requirements, generally through the adoption of best practices, and also called

industry governance—has been a powerful tool for improving performance in other industries.² For example, the diamond industry established the Kimberley Process to certify that the diamonds it sells are not “blood diamonds” procured from sellers who use the proceeds to support civil wars or insurgencies.

The surveyed companies, with their feedback, have shed light on the challenges they see, both in meeting existing regulations to ensure that nuclear and dual-use commodities and technology are controlled and secured, and in adopting some kind of self-regulation approach. Their responses ranged from “absolutely, we will consider incorporating the self-regulation approach” to “I don’t have the time to take it on because my company is too small” to “I have concerns about information sharing regarding end user and other proprietary information—we need to be competitive.”

Industry saw challenges in complying with export controls, and several interviewees pointed to gaps in the “catchall” controls that were instituted by the Department of Commerce in the 1980s. These controls require an export license for items intended for nuclear end uses and apply if the exporter “knows” or “is informed” that the goods and technologies will be used in connection with activities related to weapons of mass destruction. The focus of compliance for the exporting company is on determining what the end use is or whether the end user is legitimate, not on the capabilities of the equipment or technology. How to validate end users, however, was seen as a major challenge and was a concern raised by companies in the survey results. Individuals seeking information from exporting companies can be very good at requesting items that fall “under the radar”—that is, items

that require no license and appear to have no sensitive end-use prospect. Brokers pose another challenge because they may not do a thorough job of determining end use.

The companies that were surveyed highlighted the need to improve industry/government relations in controlling and securing nuclear and dual-use commodities and technologies. The industry/government relationship is often not collaborative, they noted, and the government provides little incentive for industry to assist in preventing the spread of nuclear, radiological, and dual-use materials and technologies. Government could address the challenges noted by industry by offering incentives such as expedited license approvals, by educating export and import brokers on the importance of validating end users, and by establishing model compliance programs for industry to follow. According to the survey results, a strong industry/government partnership would be the most effective means of stemming illicit trade.

A legal analysis of self-regulation for the nuclear and related industries found that the biggest gaps are in (1) dual-use export controls (an adequate model compliance program is needed), (2) security of radiological sources (better guidance is needed), and (3) physical protection guidance for dual-use items.³

Actions industry could take

To address the above-mentioned challenges, industry could take several actions and thereby proactively go beyond letter-of-the-law compliance to support government's role in nonproliferation and nuclear security. Companies could do the following:

- Include the control and security of nuclear commodities and technology as a tenet of their corporate governance structure, making it part of their culture.
- Hold top company officials who are responsible for exporting licensable goods personally liable for a violation of export controls.
- Establish management systems to help ensure that employees understand and meet their export control responsibilities.
- Report suspicious export requests to the appropriate government officials.

Industry as a whole could do the following:

- Establish a code of conduct on nonproliferation and nuclear security.
- Cooperate with government openly to identify innovative ways to strengthen export controls.
- Share best practices.
- Have a third party collect "best practices" from companies to serve as informal guidance.
- Lobby one or more of the international organizations focused on corporate governance to include the control and security of nuclear and dual-use commodities and tech-

nologies as a principle in their codes/standards/framework.

Benefits to industry

By adopting a self-regulation approach, a company (and industry as a whole) could avoid a loss of profits and reputation from a misdeed by another company in its industry and could possibly reduce such losses if it is the unwitting source of the misdeed. A company could gain recognition in the marketplace if the effective control and security of nuclear commodities and technologies were part of its culture.

In case studies of other industries, the endorsement of such a self-regulation approach was shown to be crucial in supporting company sales. For example, diamond companies found that they were not going to be able to sell their diamonds unless they could certify through the Kimberley Process that their product did not originate from conflict zones. For the nuclear industry, for companies to adopt and apply such an approach may at first seem burdensome and costly, particularly in an economic downturn with no immediate security or safety imperative such as that which occurred at Chernobyl. Self-regulation, however, can create a powerful market incentive for companies. By adopting the approach early on, companies can establish their commitment to nonproliferation and place themselves in a more competitive position than that of other companies that have not yet adopted a self-regulation approach. Moreover, such an approach could be an inexpensive insurance policy to help ward off potential incidents related to any oversight in safety or security.

A self-regulation program can also reduce the chances of the imposition of potentially more onerous regulations on the industry, since self-regulation can be viewed as a display of support of the government as a proactive and responsible steward of nuclear power. Potential clients who are evaluating nuclear suppliers would gain tangible and intangible advantages by selecting a supplier with strong nonproliferation and security credentials. This in turn would strengthen the market incentives to provide those credentials, which may be especially important for an emerging nuclear country that will need to reassure the international community that as it builds its nuclear energy program, it is taking into account what is good for the public, such as nonproliferation and excellent nuclear security and safety practices.

Advantageous efforts

PNNL's discussions with industry have led it to conclude that self-regulation efforts related to nuclear security and nonproliferation would be advantageous to the international nuclear industry. Companies that adopt nuclear security and nonproliferation

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as a central tenet of their corporate governance structure would gain market recognition for being responsible and proactive, and for being integral partners with government in strengthening global export controls and therefore the international nonproliferation regime. Anne Lauvergeon, chief executive officer of Areva, has embraced this notion. In her April 6 remarks to the 2009 Carnegie International Nonproliferation Conference, she declared that Areva had added nonproliferation as one of the top principles in its values charter.

Industry governance efforts can be combined with government regulatory efforts to improve the effectiveness of export controls. Industry can provide significant corroborating or new information to help governments detect the spread and diversion of such commodities and technologies. Overall, the industry-wide adoption of a self-regulation program on nonproliferation and nuclear security will result in a significant nonproliferation benefit to the international community. This is especially critical at a time when proliferation is a serious public concern, particularly in light of the global expansion of nuclear energy and the potential existence of clandestine nuclear networks that may be enabling Iran's and North Korea's nuclear programs, as well as others.⁴

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