NONPROLIFERATION PROMOTED
BY INDUSTRY SELF-REGULATION

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ABSTRACT

Government can only do so much to dissuade the illicit trafficking and/or theft of key components used to construct weapons of mass destruction (WMDs). The need for an industry self-regulation approach results from the nexus between terrorism and nuclear nonproliferation. The terrorist attacks of 9/11, the A.Q. Khan illicit trade network, and IAEA Director General, Mohamed Elbaradei's calls for an increased role of the nuclear industry in combating nuclear proliferation all serve as motivators for analyzing effective self-regulation approaches. Furthermore, UNSC Resolution 1540 calls "…upon all States to…Develop appropriate ways to work with and inform industry and the public regarding their obligations under such laws…" Industry could play an active role in promoting nonproliferation by ensuring that these materials are secure throughout the whole supply chain. This paper analyzes a continuum of self-regulation approaches for the nuclear industry to consider as a means to combat proliferation of WMDs.[1] The continuum spans between options that are easier to implement, such as a Code of Conduct or Ethics that would serve as guidance around export control and protection of sensitive commodities on site, to more sophisticated approaches involving a formalized system of governance and institutional procedures and accountability. This analysis is based on reviewing several case studies of other industries that have pursued a self-regulation approach.[2] These case studies were dissected to understand the trigger for each industry's interest in self regulation, the approach used for promoting self regulation, the entity (e.g., industry NGO) responsible for implementing the approach, the program created, and the benefits to industry from the program. The industries included in this analysis were diamond, fertilizer, cement, and chemicals. It appears that the time is ripe to share these lessons learned with the nuclear industry to determine appropriate self-regulation approach(es) for it to consider.

INTRODUCTION

Why might the nuclear industry benefit from adopting a self-regulation model? Illicit nuclear trade networks used by AQ Khan in Pakistan, requests by President Bush for nations currently lacking enrichment and reprocessing capabilities to forgo developing them to avoid production of bomb-grade material, the IAEA Director General Mohamed Elbaradei's call for an increased role by the nuclear industry to combat nuclear proliferation, and the Nuclear Threat Initiative President and Chief Operating Officer Charles Curtis' call for the industry to formulate a set of best practices for

safeguarding nuclear materials, all serve as reasons or triggers for why the industry might consider such a move.[3]

Industry could adopt a self-regulation model to ensure that nuclear materials are secure throughout the whole supply chain from their manufacture, shipping, use, storage and disposal. From a nonproliferation perspective, materials associated with the supply chain of enrichment and reprocessing are the most dangerous. Controlling their exports and ensuring physical protection of these materials while they are at an industrial facility are the main focus.

Export control is a noted area requiring improvement. A recent survey of industries that export strategic munitions and dual-use items conducted by the Center of International Trade and Security at the University of Georgia revealed that out of 120 surveyed companies, nearly 54% of the companies had self-reported violations and nearly 27% had received a warning letter from the US government about violations.[4] More than 81% of the respondents contend that lack of knowledge about export controls was the "most important" or an "important" cause of violations. Overall, industry scored a "C" (76 out of a 100 possible) on an index of "best practices" for export control compliance.[5] Awareness of these shortcomings is the first step in encouraging industry to take a proactive role in improving its compliance with a knowledge of combating proliferation of WMDs. Furthermore, the cost of compliance programs by individual companies is not trivial. The survey found that on average export compliance systems are costly, particularly for smaller exporters that have seen a 340% cost increase from 1985.[6] Great savings could likely be gained by having an industry-wide organization provide support in this area

INDUSTRY SELF-REGULATION CASE STUDIES

Lessons from the chemical, fertilizer, diamond, and cement industries all point to motivations for self-regulation that resulted in a win-win for each industry, its customers, and in several cases for the environment and society as a whole. These industries were all analyzed to understand these lessons and how they might apply to the nuclear industry in promoting nonproliferation.

From reviewing these industry case studies, we found often an unforeseen event motivated industry to create a self-regulation program. With the chemical industry it was the tragic Bhopal spill. With the fertilizer industry it was individuals using fertilizers to make a bomb that destroyed the Oklahoma City federal building, destroyed the Bali night club, and damaged the World Trade Center in the first attack. With the diamond industry it was public outcry over African rebel movements using diamonds to finance their wars against legitimate governments – called "conflict" diamonds. In the case of the cement industry, no single event occurred but a consortium of a dozen cement companies knew that they were one of the largest industrial emitters of carbon dioxide and went to the World Business Council for Sustainable Development to ask for help in determining how best to reduce these emissions. In most of these cases an existing NGO was used to develop and implement the self-regulation program. Examples include:

  ➢ World Diamond Council creating the Kimberley Process Certification Scheme where a joint government, international industry, and civil society initiative is responsible for implementing and monitoring the diamond trade.
  ➢ European Fertilizer Manufacturers Association, International Fertilizer Industry Association, and The Fertilizer Institute created a "Product Stewardship" program and "America's Security Begins with You" where private/public partnerships agree on safety measures.

- International Council of Chemical Associations (formerly the Chemical Manufacturers Association) created "Responsible Care", which was a unilateral agreement among members of the NGO to uphold.

In the case of the cement industry, a new consortium of companies joined to create the "Cement Industry Sustainability Initiative", which is completely industry based but receives advice from independent NGOs and an advisory council of outsiders.

James Miller, the former Chairman of the FTC has been quoted saying that "self regulation directly involves the parties who will generally have the best institutional knowledge about the need for action and about the efficacy of various potential actions. Second, self regulation is more flexible, and therefore is less likely to stifle innovation or excessively limit consumer choice."[7] Self regulation is not an end in itself, but combined with necessary government regulations can improve overall performance of the parties.

PROPOSED SELF-REGULATION APPROACH FOR SUPPLY CHAIN INCLUDING EXPORT AND PHYSICAL SECURITY OF MATERIALS

Options for self-regulation for the nuclear industry range from the easier to implement such as a Code of Conduct or Ethics that could serve as an ethical guidance around export control and protection of sensitive commodities on site to a more sophisticated approach involving a formalized system of governance and institutionalized procedures and accountability (see Figure 1). Initially, the industry could establish the easiest to implement (e.g., Code of Conduct or Ethics) and eventually opt to move to the right on the continuum and implement a more enforceable structure, with explicit procedures, reporting mechanisms[8], internal auditing, and certification[9] with third-party verification.

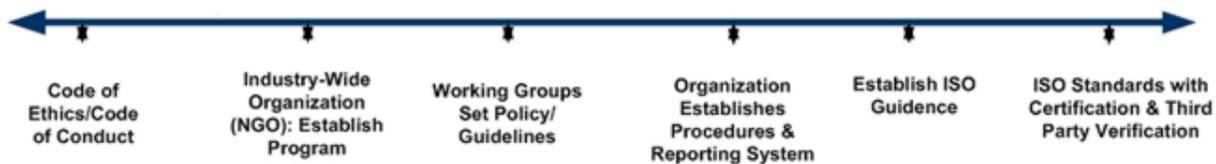| Code of Ethics/Code of Conduct | Industry-Wide Organization (NGO): Establish Program | Working Groups Set Policy/ Guidelines | Organization Establishes Procedures & Reporting System | Establish ISO Guidence | ISO Standards with Certification & Third Party Verification |

Figure 1 —Continuum of Industry Self-Regulation Approaches

To successfully launch a self-regulation program, it will likely be necessary for a few nuclear industry leaders to serve as advocates with their peers. Companies that manufacture and sell trigger-list nuclear items might be in the best position to serve as the catalyst. A new industry NGO could potentially emerge to champion this initiative. The INMM in collaboration with other entities is looking at creating a World Institute of Nuclear Security (WINS) which is currently more specifically focused on physical protection of bomb-grade material. Perhaps its proposed mission could be broadened to include a more industry-focused approach to consider the full supply chain, including export control, or a related NGO could be established to take on this mission.

Some may argue that no sizable smuggling has resulted in any nuclear accident or even a dirty bomb being released to date -- so why tackle this now? The nuclear industry has also spent a

considerable effort trying to have the public disassociate its peaceful use of nuclear materials from bomb production. Raising security concerns only blurs public perceptions. Nonetheless, the industry would benefit from being proactive in promoting nonproliferation if it adopted a self-regulation approach that helped to guard against any future nuclear incident.

REFERENCES

1. It is noted that industries that manufacture, sell, transfer, buy, and/or use radiological sources and dual-use items could also benefit from adopting a self-regulation approach.

2. Hund, Gretchen and Oksana Elkhamri, "Industry Self Regulation as a Means to Promote Nonproliferation," a Pacific Northwest Center for Global Security Publication, Pacific Northwest National Laboratory, PNNL 15355, October 2005.

3. Curtis, Charles B., "Promoting Global Best Practices", presented at the Institute for Nuclear Materials Management 46th Annual Meeting, Phoenix, AZ, July 11, 2005.

4. Center for International Trade and Security,"Survey on U.S. Industry Compliance and Export Controls: Executive Summary,",School of Public and International Affairs, University of Georgia, August 16, 2005, http://www.uga.edu/cits/documents/html/us_industry_compliance.htm. The survey recognizes that this sample of companies is not representative of the universe of more than 200,000 US exporters and that these companies are likely to have much higher standards of compliance than the average, making the statistics even more alarming.

5. Ibid.

6. Ibid.

7. Miller, James, "The FTC and Voluntary Standards: Maximizing the Net Benefits of Self-Regulation." White House Conference on Association Self Regulation, Washington, DC, Oct. 3, 1984.

8. Such reporting could be structured similarly to several sustainable development reporting initiatives, which have the aim to facilitate comparison among different companies' reports. First is the *Global Reporting Initiative* (GRI), which provides a framework for company reporting that allows easy comparison within and across a variety of organizations for voluntarily reporting on sustainable activities. Its website is www.globalreporting.org. Another reporting initiative is the *Public Environmental Reporting Initiative (PERI).* The PERI framework contains key components for environmental reporting for all types of organizations, with the aim of assisting them to create balanced and comparable reports that can be measured over time. Information on PERI can be found on the International Chamber of Commerce's website www.iccwbo.org. Also IBM describes PERI through the following website – www.ibm.com/ibm/environment/initiatives/peri.phtml. Finally, the last such initiative is *SustainAbility/UNEP Engaging Stakeholders Initiative.* This focuses on all sectors and aims to measure success in corporate environmental, social or sustainability reporting and significantly to boost reporting by companies. Its website is www.unepie.org/outreach/reporting/sustainability.htm.

9. ISO was the entity used to create a self-regulation program for industries concerned about improving environmental performance. ISO 14001 has organizations create environmental management systems to track and report on environmental performance. www.iso14000.org.