

Unanswered questions from the June 12, 2013 Fuel Cycle Information Exchange

1. The work hour's data voluntarily supplied by and discussed with the fuel cycle industry did not identify unacceptable trends or other data or information that would provide a regulatory basis for rulemaking. Does NRC have other data or event information relevant to fuel facilities that has not been shared with industry?

The work hours data provided by industry showed that some fuel cycle facilities have scheduled extended work hours for security officers such that some officers have worked significantly above site averages. This data indicates that these persons could have been adversely impacted by acute and cumulative fatigue and potentially have decreased effectiveness. The data was reviewed at the group level, at the individual level, and compared to the current 10 CFR Part 26 work hour requirements (rolling average and individual limits). The NRC found that some of the facilities would be challenged to meet the requirements that were established to address fatigue for certain nuclear power plant personnel in 10 CFR Part 26. The staff indicated in its presentation that the NRC is taking a more holistic approach, reviewing fatigue studies, as well as how other industries address fatigue. In addition, NRC staff is looking at potential consequences from officer(s) failing to perform their duties at certain fuel cycle facilities. The staff is concerned with the inconsistent approach fuel cycle facilities have taken with addressing fatigue management, which could challenge officer's performance of their duties (i.e., licensee execution of their site security plan and meeting the requirements with 10 CFR Part 73)

The current approach for managing fatigue at certain fuel cycle facilities is inconsistent with other NRC licensees that fall under fatigue requirements in 10 CFR Part 26 (e.g., security officers at nuclear power reactors), as well as other industries that have implemented fatigue requirements for personnel. Finally, the staff is following the direction provided within SRM-COMSECY-04-003 and the progress report provided April 29, 2005, to the Commission that outlined the staff's next steps in this effort and as discussed at FCIX 2013.

2. Will the attractiveness portion of the Part 73 rulemaking consider potential use as a radiological dispersed device (i.e. dirty bomb) versus simply for use as an improvised nuclear device?

The material attractiveness portion of the 10 CFR Part 73 rulemaking efforts is not considering use of material in a radiological dispersal device at this time. The NRC and LANL are focusing the development of the attractiveness approach on the capability of the adversary, defining the quantities of special nuclear material (SNM) available to an adversary at Category I, II, and III facilities, and determining the relative cost, time, feasibility and efficiency with which an adversary may process acquired SNM to a weapon useable form. The staff will also be developing security measures to address radiological risks associated with SNM, especially for Category III quantities.

3. You both mentioned NRC's involvement with outside entities and extensive international outreach. Considering that 1. Civilian nuclear power growth is expected outside the USA and that 2. The nuclear fuel industry is global in nature and very competitive, what is the level of importance the NRC is placing on these outreach programs in terms of budget and resources in order to support/encourage alignment in safety and security standards internationally?

As noted in the presentation, regarding the 10 CFR Part 73 rulemaking effort on material attractiveness and the 10 CFR Part 26 rulemaking efforts for fatigue for certain fuel cycle facilities, the NRC is focused on stakeholder outreach and obtaining comments from all stakeholders, including international stakeholders. In addition, the staff requirements memoranda concerning material attractiveness and the cumulative effects of regulation share a common theme in that the Commission has directed the staff to engage a broad range of stakeholders during rulemaking efforts. The staff is committed to, and has dedicated the necessary resources to accomplish its outreach goals to support these rulemaking efforts. As part of the NRC's international outreach, it is supporting the US Government's efforts to bring the material attractiveness concept to the global community and to help in efforts to enhance nuclear security throughout the world. The NRC has set up a web page regarding activities for both these efforts, and will continue to list its outreach activities at <http://www.nrc.gov/security/domestic/phys-protect/reg-initiatives/10cfr73.html#pub-mtgs>.