Risk Informing Regulatory Approach to Security

NSIR/DSP

RES/DRA

Much of how security policy is developed at the NRC is based on the conditional risk associated with an attack on a facility or material in transport, as well as attempts to divert or steal nuclear or radioactive material. The highest levels of protection are required for those facilities or materials that have the highest potential consequences or conditional risks. Unlike the probabilistic risk assessments (PRA) that are performed for reactor safety analyses, the initiating event in security scenarios cannot be obtained from engineering analysis, and has a very high level of uncertainty associated with it. However, if risk informed processes could be used more broadly, the regulatory process could be more consistent and result in more appropriate levels of protection for radioactive and nuclear materials under the oversight of the NRC.

As part of a user need request (ML101250651), the Office of Research (RES) worked with the Office of Nuclear Security and Incident Response (NSIR) to identify ways risk can be used to better inform NRC's approach to security regulations, licensing actions, and inspection activities. In response to this user need (ML101530269), RES held a workshop exploring the potential use of risk-informed approaches for regulating security at nuclear power plants. The workshop was held September 14 and 15, 2010 at Sandia National Laboratories (SNL) in Albuquerque, New Mexico. SNL drafted a report summarizing the conclusions of the workshop.

NSIR is continuing to have discussions with RES on how to better risk inform security. Any new major initiatives are awaiting the outcome of the agency-wide task force recommendations on risk-informing the NRC regulatory process.

Selected Major Milestones and Schedules				
Major Milestones	**Original Target Date**	**Revised Date**	**Completion Date**	**NRC Responsibility**
Held workshop at SNL	September 2010		September 2010	
Complete report on conclusions of the workshop	December 2010		December 2010	RES/DRA