

November 2, 2006

MEMORANDUM TO: Roy P. Zimmerman, Director
Office of Nuclear Security and Incident Response

THRU: Eric J. Leeds, Director */RA/*
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

FROM: Kevin Williams, Team Leader, Communications */RA/*
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

SUBJECT: FOREIGN TRAVEL TRIP REPORT

A summary of the staff's information exchange with the Nuclear Installations Inspectorate (NII) and subsequent observation of the Sellafield emergency response exercise in the United Kingdom (UK) is enclosed. The NRC staff was invited by NII to observe a UK emergency exercise and to discuss emergency preparedness regulations, guidance, and response. The staff also toured emergency response facilities and the Sellafield Emergency Facilities and Site. There were no security insights observed or obtained during the staff's visit. The content of this report may be of interest to the Commission and should be forwarded to the Commission.

Enclosures:

1. Trip Report
2. Copies of Business Cards

Contact: Kevin Williams NSIR/DPR
301-415-1104

NRC FOREIGN TRIP REPORT

Subject: Division of Preparedness and Response's visit to the Nuclear Installations Inspectorate (NII) Headquarters and the to Sellafield site in the United Kingdom (UK)

Dates of Travel and Countries/Organizations Visited: September 27 through October 5, 2006, Nuclear Installations Inspectorate, United Kingdom

Author, Title, and Agency Affiliation: Kevin Williams, Team Leader, Communications, Division of Preparedness and Response, Office of Nuclear Security and Incident Response

Sensitivity: Not sensitive

Background/Purpose: The NRC staff was invited by NII of the UK to observe an emergency exercise. The purpose of the travel was to gain insights and solicit information, between the NII and the NRC, regarding Emergency Preparedness and observe an emergency exercise. The staff toured the emergency response facilities and received an overview of NII's regulatory structure at its Health Safety Executive (HSE) headquarters in Bootle, observed an emergency preparedness exercise in Carlisle, and toured the Sellafield site.

Abstract: Summary of Pertinent Points/Issues: The regulations in the UK that govern emergency response activities are written in a performance-based manner. Compliance with the regulations is determined by a successful demonstration by the operator that public health and safety can be protected. Specifically, the regulations are written such that the operator must demonstrate, through implementation of its emergency plan that it is capable of complying with the regulations. This demonstration will lead to a determination by NII that an acceptable level of preparedness and response exists for the operator. There appears to be some subjectivity regarding the evaluation of the operator by NII however, the staff observed process ownership, great cooperation, and excellent relationships between the operator and the local authorities such that it would warrant further investigation. The operator's emergency plan is constructed to respond to what is reasonably foreseeable (design basis accident) and not the worst case scenario. However, the licensee must have arrangements in place to extend its response effort to address events that are beyond the reasonably foreseeable planning basis. The operator is given the latitude to develop emergency arrangements (plans) that will preclude any public health and safety concerns as the regulations do not provide for how the plan should be constructed but the regulations establish the need for the ability to cope with any accident or emergency. The operator works with the local authorities to develop these emergency arrangements. These emergency arrangements can be revised based upon lessons learned, good practices, the use of historical data, successful and unsuccessful exercises, actual experience, and testing of the plan in conjunction with NII. This information serves to outline what would be an acceptable means of emergency response.

The operator and the emergency management officials respond in an all-hazards approach focusing on communications and response. This has led to a well developed response effort and consistent approaches and processes no matter what is the initiating event regarding the response effort. In addition, this allows for a better understanding of resource needs,

allocations, capabilities, and results in an increased confidence in the ability to respond to any type of incident.

There is significant openness in both the government and licensee interactions with stakeholders, especially through elected public representatives such as local councils. The operator makes extensive use of public tours to communicate with the public. The result seems to be a long-term relationship from which trust and confidence can develop.

A systematic review/comparison between the regulations and the associated License Condition Handbook used in the UK and 10 CFR regulations related to emergency preparedness may provide further insight into DPR's current effort to revise the EP regulations and guidance. In addition, the staffs visit and information exchange was worthwhile and DPR should maintain open communication channels and information exchange with NII as an additional avenue to seek opportunities for regulatory improvements.

Discussion: Two DPR staff members participated in an information exchange with NII in the UK and were involved in the following activities:

HSE Headquarters Visit and Technical Exchange

On September 29, 2006, DPR staff attended a briefing hosted by NII at HSE's headquarters and discussed numerous topics related to emergency preparedness and NII's response to a nuclear emergency. The briefing was presented in preparation for the subsequent national emergency preparedness exercise involving the Sellafield site. The briefing also contained information regarding legislation in the UK which applies to nuclear sites, discussions on the guidance and regulations outlined in the Radiation Emergency Preparedness and Public Information Regulation (REPPPIR) and general topics related to emergency exercises. DPR staff subsequently participated in a technical information exchange with NII inspectors, presented the concepts of MD 8.2, NRC Incident Response Program and NUREG-0728, NRC Incident Response Plan, and provided a brief presentation of the entire NRC public website.

OSCAR 8 Exercise

On October 3, 2006, the staff attended an Off-Site Carlisle Accident Response (OSCAR 8) exercise involving an extendibility or beyond design basis scenario to demonstrate adequate off-site arrangements under the terms of the operating license. The Sellafield operator organized the exercise in conjunction with Cumbria County officials per REPPPIR requirements of a level 3 (Grade A) emergency exercise involving regional off-site facilities and civil national response every 3 years. The scenario was based upon a simulated release of radiation at the Sellafield site. The primary off-site response center was in the plume pathway and consequently the alternate Emergency Control Center was used to coordinate the off-site response. In addition, the staff observed that during the exercise, a team was established whose sole purpose was to focus on recovery efforts. The team anticipates future activities, what actions need to be taken to reclaim areas, and address any issues regarding livestock. At the conclusion of the exercise, NII facilitated a hotwash where exercise participants provided verbal input to conferees who will follow up with written input containing lessons learned for possible implementation in the emergency plans.

Sellafield Site and Emergency Centers Visit

On October 4, 2006, DPR staff toured the Sellafield site situated 11 miles south of the coastal town of Whitehaven in West Cumbria, which is owned by the Nuclear Decommission Authority and operated by BNG, a standalone company of BNFL Group. Sellafield comprises more than 200 nuclear facilities and employs 10,000 people. The current site portfolio of contracts involves 26 customers operating in eight countries. DPR staff was accompanied by NII and Sellafield personnel who provided a guided tour at the visitor's center and throughout the site. A visit was made to a staging warehouse where site personnel demonstrated the use of rapid deployment equipment such as robot vehicles, inflatable tents, ready to go mobile command center that can be used at the site during an emergency. During a tour of the Thermal Oxide Reprocessing Plant, not operational that day, several processes were delineated such as spent fuel reprocessing from receipt to storage, mixed oxide fuel reprocessing and final product manufacturing, and high-level radioactive waste vitrification. Subsequent to this visit, the operator also facilitated a tour of the West Cumbria Emergency Control Center at Summergrove, which is the primary off-site emergency response center.

Pending Actions/Planned Next Steps for NRC: The exercise observation and information exchange should serve as a conduit for further NII and NRC interactions. The NSIR/DPR staff believes that open communication channels should be maintained and information exchanges with NII should be continued.

Points for Commission Consideration/Items of Interest: In the United Kingdom, the EP regulations are written and implemented in a performance-based manner. This structure has been in place since NII was created to regulate the use of nuclear materials.

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