

February 24, 2016

MEMORANDUM TO: Michael Layton, Director  
Division of Security Operations  
Office of Nuclear Security and Incident Response

FROM: Dr. Ralph Way, Senior Technical Advisor */RA/*  
Division of Security Operations  
Office of Nuclear Security and Incident Response

SUBJECT: SUMMARY OF JANUARY 12, 2016, CATEGORY 3 PUBLIC MEETING  
ON FORCE-ON-FORCE TACTICS, TECHNIQUES, AND  
PROCEDURES WORKING GROUP (BACKGROUND, TASKS,  
FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS)

The following is a summary of the Category 3 Public meeting held on January 12, 2016. The meeting was chaired by Dr. Ralph Way, Senior Technical Advisor for Security, U.S. Nuclear Regulatory Commission (NRC), Office of Nuclear Security and Incident Response.

Dr. Way opened the meeting and introduced himself and the co-chair Mr. Anton Vogel, Region IV. Dr. Way directed the meeting participants' attention to a panel of technical staff and introduced them to the audience. The staff who participated in the Force-on-Force (FOF) Working Group had been assembled to respond to the Staff Requirements Memorandum (SRM) SRM-SECY-14-0088. The NRC technical staff in attendance were Jessica Bielecki, Office of the General Counsel (OGC); Patty Jehle, OGC; Steven Orth, Region III; Juan Peralta, Office of Nuclear Reactor Regulation (NRR); Merritt Baker, Office of Nuclear Materials Safety and Safeguards (NMSS); Rupert Rockhill, Office of Nuclear Security and Incident Response (NSIR); David Furst, Office of Enforcement (OE); Oleg Bukharin, NSIR; Melissa Ralph, NSIR; Raymond Gibson, NSIR; David Bradfield, NSIR; and Dennis Alston, NSIR.

Dr. Way started the meeting with the presentation of the agenda. The agenda highlighted the following topics:

- Background of the NRC FOF Performance Inspection Program Assessment;
- FOF Tactics, Techniques, and Procedures (TTP) Working Group's (WG) taskings:
  1. analyses,
  2. findings, and
  3. recommendations;

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- Other activities of interest; and
- Next steps.

Dr. Way stated a majority of the work was directed at reactors but there were some items applicable to Category I facilities.

Dr. Way's presentation of the background started with the reference of the Staff Requirements Memorandum (SRM) COMGEA/ COMWCO-14-0001 - FOF Lessons-Learned Review in February of 2014. This SRM detailed the Commission's direction to the NRC staff to undertake a lessons learned review of the force-on-force performance inspection program with a primary objective at looking at the design-basis threat (DBT).

A working group was formed and completed the lessons learned review as directed by the Commission. The Working Group provided the Commission with options and recommendations based on its review. The Working Group also identified a number of commitments that did not require Commission action.

The background continued with SRM SECY-14-0088 Commission Direction:

1. Establish an NRC working group to determine how to better integrate knowledge of adversary training methodologies and actual attacks with the tactics, techniques, and procedures used by the NRC composite adversary force, using a formal change control process with stakeholder input.
2. The staff should ensure that force-on-force exercises continue to be realistic and consistent with the design basis threat.
3. Provide to the Commission with recommendations regarding the need to continue its [FOF TTP WG] research and, if the study is complete, any revisions to be made to Composite Adversary Force tactics, techniques, and procedures.
4. Coordinate through the Nuclear Security Working Group – to fully evaluate the pros and cons of implementing changes to the current configuration to the MILES used during NRC FOF performance inspections and if it would result in an overall enhancement to FOF exercises and
5. Evaluate the NRC requirements for unattended openings.

Dr. Way concluded the background by discussing the Commission's support of the staff's commitments, as listed in SRM SECY-14-0088, to the following actions that not require Commission approval:

1. Continue working with industry to review and reduce the number of extensive simulations used in developing and executing FOF scenarios by identifying, validating, and benchmarking mechanisms, such as the use of simulation software, to evaluate potential vulnerabilities that may be inappropriate for performance testing during an NRC-conducted FOF exercise;
2. Review and update the physical protection significance determination process (for evaluating the security significance of unattended openings);
3. Issue a generic communication to licensees to clarify the NRC's expectations regarding the implementation of compensatory measures; and
4. Enhance guidance, training, and inspection program documents in the effort to improve the realism and effectiveness of FOF exercises.

Dr. Way's next agenda topic was the WG's actions. The FOF TTP WG was tasked with:

1. Determining how to better integrate knowledge of adversary training methodologies and actual attacks with the tactics, techniques, and procedures used by the NRC composite adversary force.
2. Reviewing the NRC's requirements for unattended openings.
3. Issuing a Regulatory Issue Summary on compensatory measures.

Dr. Way further explained the first tasking: Determine how to better integrate knowledge of adversary training methodologies and actual attacks with the tactics, techniques, and procedures used by the NRC composite adversary force. The following analysis was completed for this tasking:

- Reviewed Intelligence reporting on adversary training and actual TTPs used,
- Reviewed inspection reports from all four FOF inspection cycles to identify the TTPs used by the Composite Adversary Force (CAF) in the NRC-evaluated performance tests and compared them to actual intelligence reporting,
- Reviewed NRC guidance and inspection program documents to identify potential gaps,
- Reviewed and analyzed licensee-developed FOF lessons learned (corrective action reports and FOF executive lessons learned presentations),
- Received briefings from internal and external subject matter experts on FOF topics,
- Conducted two public meetings to receive input from the public and stakeholders, and
- Conducted a closed Federal Partners meeting to solicit input from agencies that conduct similar inspections.

Once the analysis was completed, the WG compiled a list of findings. Dr. Way presented the WG's findings:

- NRC's DBT is consistent with actual terrorist TTPs,
- The CAF TTPs are consistent with the NRC's DBT and actual terrorist TTPs,
- There are inconsistencies and confusion across multiple licensees regarding adversary TTPs employed during licensees' own drills and exercises, and
- These inconsistencies are attributable to the absence of:
  - Mock adversary force training and qualification criteria.
  - Mission planning training and qualification standards.
  - Controller and simulation training and qualification criteria.
  - Formal guidance for post-exercise critiques.
  - An NRC program for sharing FOF operational experience information.

Dr. Way presented the WG's recommendations:

- Develop mock adversary force training and qualification criteria,
- Improve controller/simulation guidance and include training and qualification criteria,
- Develop formal guidance for post-exercise critiques,
- Develop mission planning training and qualification standards for use by both the NRC and licensees,
- Develop a program for sharing NRC FOF operational experience information.

- Develop a user need to develop a standard reference guide for weapons and explosives characterization and effects,
- Update and ensure consistency in all NRC guidance, and
- Enhance the FOF disputed item resolution (escalation) process.

Dr. Way continued on to the second tasking with a discussion of evaluating the NRC's requirements for unattended openings (UAOs) and the account for the realistic ability for specific opening configurations to be exploited when evaluating inspection findings and assessing licensee corrective actions. Dr. Way provided the WG's analysis of the tasking:

- Reviewed past inspection findings dealing with UAOs,
- Reviewed standards applied by other Federal agencies and the private sector against the threat environment, and
- Developed options for addressing UAOs.

Dr. Way presented the WG's findings and recommendations. The WG found no basis to support a change to the NRC's UAO requirements; and the WG found that the significance determination process (SDP) for UAOs was too subjective. The WG's recommendations are to revise the SDP to remove subjective factors and improve the repeatability of UAO SDP outcomes, and to provide credit for existing barriers and detection systems (including those implemented voluntarily). The SDP revision was issued on October 26, 2015.

Dr. Way then discussed the final tasking of issuing a generic communication to licensees to clarify the NRC's expectations regarding the implementation of compensatory measures following the identification of security vulnerabilities during FOF exercises. For the analysis, the WG reviewed past licensee actions regarding compensatory measures. The WG findings identified that licensees were applying immediate compensatory measures in certain cases where such measures are not required under NRC regulations and guidance.

The WG provided the recommendation to issue a Regulatory Issue Summary (RIS), "Clarification on the Implementation of Compensatory Measures for Protective Strategy Deficiencies or Degraded or Inoperable Security Systems, Equipment, or Components." The RIS will be issued for public comment in February of 2016

Dr. Way presented other activities of interest:

1. FOF Notification Schedule Change – FOF notifications are now under the ROP schedule,
2. Inside information provided to CAF – licensees are no longer asked to identify a dedicated "insider" to support the FOF inspection,
3. Project AIM – NEI Letter,
4. NEI Performance Metrics White Paper, and
5. Office of Nuclear Security and Incident Response White Paper review process.

Dr. Way concluded his presentation with the next steps:

- Evaluate stakeholder feedback,
- Finalize recommendations for response to SRM SECY-14-0088, and
- Present final recommendations NRC management NLT January 31, 2016

The moderator then asked for questions from the floor.

**Mr. P. Asendorf** asked will there be training requirements for CAF that is different from what is presently done?

**Dr. Way** responded that development of specific training to focus on the criteria.

**Mr. P. Asendorf** inquired if there would be guidance in DG-5043.

**Dr. Way** indicated that existing guidance would be updated to address the additions and/or clarifications.

**Mr. T. Vogel** reiterated the updating to make the guidelines more clear and providing more consistency.

**Dr. E. Lyman** questioned the licensee's run drill program and the NRC giving more credit through the SDP to those licensee run programs.

**Dr. Way** stated that there would be credit given through the SDP.

**Dr. E. Lyman** questioned if the threshold criteria took into account the credit given to licensee run programs and if the FOF findings were being diluted. He indicated the he believed the licensee programs were not as rigorous if NRC FOF exercises are reduced to one, the licensee's ability to protect their sites would be reduced.

**Dr. Way** commented that the WG was fact finding and the SDP was adjusted to include more factors and realism; as well as some other factors. The WG found some inconsistencies in the CAF training and controller training and is reporting the facts.

The moderator opened the bridge line but no questions were asked.

**Mr. E. Lyman** asked if the group would submit a SECY paper.

**Dr. Way** stated the WG would formalize its comments and provide them to NSIR management. NSIR management would provide the SECY to the Commission.

**Dr. Way** concluded the public meeting.

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**Dr. Way** concluded the public meeting.

**ADAMS Accession No. ML16020A474, Pkg. ML16014A040**

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