MEMORANDUM TO: Michael Layton, Director
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SUBJECT: RECOMMENDATIONS FROM THE FORCE-ON-FORCE TACTICS, TECHNIQUES, AND PROCEDURES WORKING GROUP

This memorandum provides recommendations from the Force-on-Force (FOF) Tactics, Techniques, and Procedures (TTP) Working Group, which was established in accordance with Commission direction in Staff Requirements Memorandum (SRM) SECY-14-0088.

The Office of Nuclear Security and Incident Response (NSIR) established this working group to determine how to better integrate knowledge of adversary training methodologies and actual attacks with the TTPs used by the Composite Adversary Force (CAF) during NRC-conducted FOF exercises. The working group is comprised of representatives from NSIR's Division of Security Operations (DSO), NSIR's Division of Security Policy, the Regions, the Office of the General Counsel, the Office of Nuclear Reactor Regulation, the Office of Nuclear Materials Safety and Safeguards, and the Office of Enforcement. The working group developed a charter, which was approved by its Steering Committee on May 20, 2015, and is provided as Enclosure 1 to this report.

In developing its recommendations the working group sought the viewpoint of a wide range of sources. The working group reviewed intelligence reports on adversary TTPs and current NRC and industry guidance on the FOF program. The working group was briefed by subject matter experts from the NRC and external organizations and held three public meetings with stakeholders. The working group also conducted a meeting with the Department of Energy and the Department of Defense to exchange background information on each agency's FOF program and the current challenges they face.

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Based on its review and these meetings, the working group did not identify gaps between the TTPs used by the NRC CAF during FOF exercises and the methods used in real-life adversary training and actual attacks. However, the working group noted inconsistencies in the way the NRC and licensees prepare for and implement FOF exercises. The working group found that these inconsistencies interfere with the NRC's ability to ensure that both NRC- and licensee-conducted FOF exercises are credible, objective, and realistic across the entire regulatory program. Overall, the root causes of the inconsistencies are related to a lack of clear guidance documents issued by the either NRC or the Nuclear Energy Institute (NEI).

The working group determined that in order to ensure that FOF activities continue to be realistic and consistent with the design basis threat, NRC guidance on training and qualifications, and on inspection procedures should be considered. Specifically, the working group identified the following areas for guidance development or improvement: (1) mock adversary training and qualification standards, (2) controller training and qualification standards, (3) simulations, (4) post-exercise critique guidance, (5) mission planning training and qualification standards, and (6) development of a formal information sharing program for FOF operational experience.

The working group also recommended that the significance determination process (SDP) for unattended openings (UAOs) be revised to provide a more objective means of evaluating UAO findings and that 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," be issued to clarify existing compensatory measures requirements. Details of the working group's findings and recommendations are provided below.

BACKGROUND:

The Commission directed the staff to establish an NRC working group to determine how to better integrate knowledge of adversary training methodologies and actual attacks with the TTPs used by the CAF. The Commission directed that this working group ensure that FOF exercises continue to be realistic and consistent with the design basis threat (DBT), and that the staff use a formal change control process with stakeholder input before implementing changes. The Commission also directed the working group to report its findings to the Commission in a notation vote paper, with recommendations regarding the need to continue its research and, if the study is complete, any revisions to be made to CAF TTPs. Finally, the Commission directed the staff to rely on the working group to evaluate the NRC requirements for unattended openings (UAO) and to account for the realistic ability for specific opening configurations to be exploited when evaluating inspection findings and assessing licensee corrective actions. This memorandum provides the working group's findings and recommendations for consideration as the staff's final notation vote paper is developed.

DISCUSSION:

The working group focused its analysis on three areas: (a) consistency and realism of mock adversary force TTPs with real-world adversary training methodologies within the DBT, (b) unattended openings, and (c) compensatory measures for security issues. The staff is

assuring that stakeholders with the appropriate need-to-know are engaged in any potential changes to the inspection program.

Composite Adversary Force Tactics, Techniques, and Procedures

At the direction of the working group, NSIR/DSO's Intelligence Liaison and Threat Analysis Branch (ILTAB) conducted an examination and comparison of the NRC's DBT with intelligence reporting on different terrorist groups. This examination identified and documented the components of selected terrorist training programs and the TTPs used by these groups. The terrorist groups were selected based on their stated intent to attack U.S. critical infrastructure and demonstrated capabilities to carry out such attacks. ILTAB developed a Nuclear Intelligence Digest (NID) outlining its findings. ILTAB coordinated the NID with the National Counter-Terrorism Center and presented its findings to the working group. The NID is classified at the SECRET-National Security Information level and is controlled by ILTAB. The NID formed the basis for a comparison of documented adversary TTPs from intelligence sources to the NRC DBT and the TTPs used by the NRC CAF. Information on the TTPs used by the NRC CAF was drawn from a sample of inspection reports from all four NRC FOF inspection cycles. Enclosure 2 provides a comparison of the NRC's DBT attributes to the terrorist TTPs identified through ILTAB's NID and the NRC CAF TTPs employed during NRC-conducted FOF exercises. Table 1 shows a summary of this analysis, which is explained in more detail in Enclosure 2, which contains Safeguards Information. Table 1 lists the NRC's Design Basis Threat attributes, whether the staff found those attributes to be demonstrated in terrorist training and capabilities, and if the TTPs demonstrated by NRC CAF in NRC-conducted FOF exercises were consistent with the demonstrated terrorist training and capabilities.

10 CFR 73.1	Demonstrated Terrorist Capabilities	Consistency with the NRC CAF
73.1(a)(1) violent external assault	X	X
73.1(a)(1)(i)(A) Well-Trained	X	X
73.1(a)(1)(i)(B) Insider – Active, Passive, or both	X	X
73.1(a)(1)(i)(C) Suitable Weapons	X	X
73.1(a)(1)(i)(D) Hand-carried Equipment	X	X
73.1(a)(1)(i)(E) Transport Vehicle	X	X
73.1(a)(1)(ii) Internal Threat	X	X
73.1(a)(1)(iii) Land Vehicle Bomb	X	X
73.1(a)(1)(iv) Water-borne Vehicle Bomb	X	X
73.1(a)(1)(v) Cyber Attack	--	--

Table 1. Demonstrated Terrorist Capabilities Table

Findings

The working group found that the TTPs used by the CAF are consistent with the characteristics in the NRC's DBT. The working group, as documented in the NID, also found that the CAF demonstrated a level of training consistent with real-world terrorists.

The working group then conducted a thorough review of the results of previous NRC-conducted FOF exercises as well as existing NRC guidance and inspection program documents. This review examined TTPs, Regulatory Guide (RG) 5.69, and the adversary characteristics document for differences and similarities. The review enabled the working group to identify challenges with the transition from the Commission-approved DBT, DBT guidance, and the inspection program documents to the real-time decisions made in the field during NRC-conducted FOF exercises and licensees' drills and exercises. The DBT and DBT guidance documents provide performance-based requirements and explanations, while inspection procedures, by necessity, are more detailed. Hence, there is a potential challenge to assure that this more detailed guidance remains within the bounds of the performance-based requirements and guidance.

Licensees are required to conduct their own annual drills and exercises. These drills and exercises must be designed to challenge the site protective strategy against elements of the DBT and ensure participants assigned security duties and responsibilities are able to demonstrate the requisite knowledge, skills, and abilities. To accurately represent the DBT, licensees should conduct their drills and exercises to the same level of proficiency as that of triennial NRC-conducted FOF exercises. The working group found inconsistencies in the quality of mock adversary force training programs implemented by licensees, which leads to varying degrees of mock adversary proficiency. Sites with less proficient mock adversaries are less able to conduct challenging and realistic drills and exercises. When a licensee's drills and exercises are not sufficiently challenging and realistic, the licensee is less able to evaluate the effectiveness of its site's protective strategy and to effectively train the site's protective force. When a licensee's protective force is not effectively trained and evaluated in licensee-conducted drills and exercises, the licensees can experience unplanned exercise time-outs, disputed exercise scenarios, and challenges for demonstrating defense-in-depth strategies during NRC-conducted FOF exercises.

The working group concluded that the primary reasons for these inconsistencies is a lack of clear guidance in documentation prepared by the NRC, industry, and licensees. Additionally, the lack of information sharing of operational experience on FOF exercises also contributes to these inconsistencies.

With respect to guidance, there are several existing documents that contain information describing attributes of the DBT adversary that are used in NRC-conducted FOF exercises and licensee-conducted FOF exercises:

1. RG 5.69, "*Guidance for the Application of the Radiological Sabotage Design- Basis Threat for Nuclear Power Reactors"*;

2. RG 5.70, "*Guidance for the Application of the Theft and Diversion Design-Basis Treat in the Design Development, and Implementation of a Physical Security Program that Meets CFR 73.45 and 73.46*"
3. Inspection Procedure (IP) 71130.03, "Contingency Response – Force-on-Force Testing," Addendum 5;
4. IP 96001, "NRC Force-on-Force Inspections at Category Fuel Cycle Facilities," Addendums 5 and 10; and
5. NEI 05-05, *"Controller Responsibilities Guideline."*

RG 5.69 and RG 5.70 provide guidance for licensees (Nuclear Power Plants and Category I fuel cycle facilities, respectively) to use in developing a physical protection program that protects against the DBT, as described in Title 10 of the *Code of Federal Regulations* (10 CFR) 73.1. IP 71130.03, Addendum 5 provides detailed guidance for FOF inspectors on those adversary characteristics to be used during FOF inspections at power reactors. Similarly, IP 96001, Addenda 5 and 10 provide guidance on adversary characteristics and capabilities for Category I fuel cycle facilities.

In the past, as new information became available, the NRC staff added specifics to these guidance documents in an effort to more accurately describe adversary characteristics. However, the inclusion of force-on-force information in NRC regulatory guidance created confusion and led to the mistaken impression that these guidance documents are intended to be "playbooks" for FOF exercises. The staff recently began updating RG 5.69 and 5.70 to address this confusion by removing guidance on adversary characteristics used during FOF exercises. The target release date for these updates is March of 2016. These updates are intended to clarify guidance provided in these RGs.

As part of its analysis, the working group reviewed mission planning scenario items in NRC-conducted FOF exercises that were disputed by licensees. The working group concluded that the most commonly disputed items are TTPs used to degrade or bypass the licensee's defense-in-depth strategy. Across the industry, licensees are often unware of the range of TTPs used during NRC-conducted FOF exercises or TTPs used by other site's adversary forces during licensee-conducted drills and exercises because the NRC has not effectively shared this information with licensees. The working group identified that the NRC does not currently have a formal mechanism for sharing FOF operational experience related to FOF TTPs across the nuclear industry. The NRC's operational experience information may be different than that collected by NEI for industry. Additional insights could potentially be provided by sharing the NRC's operational experience information, as NEI's information sharing my not include the same level of information as that which the NRC collects. Without information from NRC-conducted FOF exercises at other sites, licensees are less able to conduct challenging drills and exercises at their own sites and are less prepared for the NRC-conducted FOF exercises. Additionally, licensees are challenged to implement effective control measures for TTPs that have not been employed at their sites.

Recommendations

Develop guidance on mock adversary force training and qualification. There is currently no formal guidance or performance standard for the training and qualification of the mock adversary force for power reactor licensees. Current licensee adversary training programs can range from a four hour slide presentation to a week-long mock adversary training program that more closely replicates the CAF training program. Standardized training and performance guidance would provide licensees with an objective and consistent way to measure training effectiveness. Additionally, this guidance could reduce the likelihood of uncertain or indeterminate outcomes during the NRC-conducted exercises by helping to ensure consistent expectations for adversary performance. This training guidance would also provide the CAF and licensees' mock adversary forces with comparable qualifications and abilities in tactics to better prepare licensees to defend against the DBT.

Accordingly, the working group recommends that RG 5.75 be revised to include guidance about knowledge, skills, abilities, and performance to help ensure a credible, consistent, and well-trained mock adversary force that more accurately reflects the DBT adversary. This guidance will provide clear expectations and improve consistency in the training and qualification of mock adversary forces, and thus enhance the credibility, objectivity, and realism of FOF exercises.

Develop criteria for a comprehensive controller training and qualification program and detailed controller guidance. The working group found more than 50% of the corrective action reports prepared by licensees identified controller/exercise control issues. Significant controller issues identified include, (a) failure to include the drill scenario in the safety monitor brief, (b) failure to evaluate controller injects for simulated cutting of delay barriers, and (c) failure to evaluate the fleet process for controlling simulated daytime exercises. The licensee's ability to control an FOF exercise affects whether the licensee is able to conduct a safe, effective and efficient exercise.

The working group finds that a consistent and comprehensive training and qualification program is necessary to ensure controllers have the requisite knowledge, skills and abilities to safely control FOF players and events. The NRC has not developed detailed guidance for controller training and qualification for use during licensee-conducted drills and exercises or the NRC-conducted FOF performance tests. Comprehensive guidance for controllers would establish a consistent basis for controller training. This guidance should include all areas of exercise control and simulation as well as how to determine definitive outcomes for an FOF exercise from beginning to end. Clear guidance for controller training and qualification should allow for predictable and repeatable exercise determinations that could be tested and evaluated during NRC inspection of licensee-conducted drills and exercises. These improved processes would reduce unplanned and extended timeouts in both NRC-conducted FOF exercises and licensee drills and exercises. Fewer unplanned and extended timeouts could also reduce the frequency of "indeterminate" NRC-conducted FOF performance tests.

Develop guidance for post-exercise critiques. In the current FOF inspection cycle (Cycle 4), beginning January 2014, the NRC started including a formal post-exercise critique given by the licensee's security organization to their site and corporate management as part of the FOF

inspection. The purpose of this critique is to capture lessons learned from the exercises as well as identify potential weaknesses that can be addressed by the licensee's corrective action program (CAP) for power reactors or an equivalent program for Category I fuel cycle facility licensees. The critiques have been viewed positively by both licensees and the NRC as a means to identify the aspects of a licensee's program that are working well and what areas require improvement. These critiques also demonstrate to the NRC inspection team that the licensee has identified best practices and can incorporate them into the site's protective strategy. Since the beginning of the inspection cycle, the critiques have varied in detail, level of attendance, and quality depending on the site. The working group believes that a more structured, formal critique process will help licensees better incorporate improvements based on lessons-learned from their own drills and exercises, as well as implement appropriate corrective actions.

Therefore, the working group recommends that specific FOF critique guidance be included in a new guidance document to assist licensees in collecting more detailed and useable data regarding FOF exercise performance. The purpose of the guidance is to improve licensees' abilities to recognize issues that are directly related to their protective strategies and to implement appropriate corrective actions.

Develop mission planning training and qualification standards. A key component of an effective and challenging FOF exercise is adversary assault mission planning. In an NRC-conducted FOF exercises, the CAF director receives a mission statement, including target objectives and mission parameters, from the NRC inspection team. The CAF director converts this information into a detailed plan, which is then used by the licensee to develop a controller matrix and by the CAF to execute the mock attack. The working group determined that systematic and disciplined mission planning is not employed consistently among CAF directors. The NRC does not have requirements, guidance, or an agreed upon methodology for conducting mission planning activities. Effective mission planning is an even greater challenge in the case of licensee-conducted drills and exercises, which may hamper the development of realistic scenarios and exercises. A properly conducted and documented mission planning process would enhance FOF exercises and support the NRC's safety and security regulatory objectives.

The working group recommends developing guidance to establish training and qualifications standards for mission planners for inclusion in RG 5.75. The working group also recommends revising IP 71130.03 and IP 96001 (for Category I fuel cycle facilities) to provide for more formal engagement between the CAF director and the NRC inspection team during the mission planning process. Finally, because NRC security specialists and inspectors would benefit from training dedicated to the mission planning process, such training should be included in a revision to the NRC Inspection Manual Chapter (IMC) 1245 training requirements.

Develop formal FOF operational experience information sharing program. Licensees share information about their FOF programs informally, however a program to share operational information and experiences for FOF does not exist. Without information sharing, licensees are unaware of the TTPs used by the CAF and licensee adversary forces at other sites and it is difficult for them to develop control measures for TTPs that have not been used at their own sites. The working group believes that a formal information sharing program would

allow licensees to prepare more effectively for both their own drills and exercises and for the NRC-conducted FOF exercises.

The working group recommends that the staff develop a program to track and trend the results of NRC-conducted FOF exercises, including disputed exercise scenarios that are escalated, as well as the information that is shared during FOF Executive Lessons Learned meetings. The working group recommends that information related to TTPs used in NRC-conducted FOF exercises be shared with the industry on a regular basis as part of a formal information sharing program. Site-specific outcomes and information would not be shared under this program so that the NRC would remain impartial.

Develop and submit a User Need to create an NRC-endorsed reference document. Currently the staff and licensees use a number of reference documents in support of FOF activities, including US Army Field Manuals, DOE Technology Transfer Manuals, and NEI Guides. These reference documents describe weapons characteristics and effects, and counter measures. These documents also support the technical analyses of adversary attributes, such as breaching barriers. Because these reference documents are not consistent with each other, the use of the documents can cause confusion when evaluating FOF exercises. As an example, the weight of an explosive charge is calculated differently by different reference documents.

The working group recommends that the staff submit a formal request (User Need) to the Office of Nuclear Regulatory Research to develop a single reference document defining characteristics and effects of weapons and explosives. This document would complement the recommended development of controller and simulation guidance. The proposed reference document would also assist NRC inspectors and licensee controllers in assessing the effects of different weapons and explosives used in adversary-simulations during NRC-conducted FOF exercises and licensee drills and exercises.

<u>Unattended Openings</u>

The Working Group evaluated several options for addressing how UAO inspection findings and assessments of licensee corrective actions can take into account the realistic ability for specific opening configurations to be exploited by the DBT adversary. The Working Group reviewed the NRC's requirements for UAOs and considered the standards applied by other federal agencies and the private sector for protecting UAOs given the current threat environment. The Working Group did not find a technical basis that would support changing the NRC's requirements for unattended openings. These requirements are consistent with the standards used by other Federal agencies and private industry. Additionally, the Working Group found that the NRC's requirements and guidance for unattended openings are realistic because they only require protection of those unattended openings that could reasonably be exploited by the DBT adversary.

Findings

The Working Group found that the SDP for UAOs was subjective and made it difficult for NRC inspectors to account for the possibility that specific opening configurations might be exploited. The previous SDP evaluated the significance of UAO findings by determining the "probability of adversary effectiveness." The SDP provided no objective means for this assessment and relied entirely upon the judgment of the inspector. The inspector would characterize the exploitability of a specific unattended opening configuration as "very low," "low," "medium," or "high" and would use this characterization, along with the length of time that the vulnerability had existed, to determine the significance of the finding. The working group determined that the staff should address this subjectivity through a revision to the SDP for UAOs that would provide inspectors with objective criteria for assessing UAO findings.

The Working Group asked the staff to conduct an analysis and develop an SDP that would appropriately characterize UAO findings in a predictable and repeatable fashion while reducing inspector subjectivity. The staff developed an SDP that allows for a more objective assessment of UAO findings by taking into account how physical barriers and intrusion detection systems might impact the ability to exploit an UAO. Under the revised SDP, the significance of a UAO finding is determined based on the number of physical barriers or intrusion detection systems that an adversary would encounter when using the UAO as a pathway to the desired target set equipment. These barriers and/or detection systems provide the licensee with opportunities to detect and interdict the adversary between the UAO and the target set equipment, thereby potentially reducing the significance of the finding.

The Working Group recommended that the staff issue the revised SDP to remove subjective factors and provide credit for existing barriers and detection systems (including those implemented voluntarily) when assessing the significance of a UAO finding. The proposed revisions were presented at a public meeting on May 26, 2015, without the OUO-SRI details, and received no comments. The full version of the proposed SDP revision was also sent to industry for comment. On behalf of the industry, NEI provided comments on the proposed SDP, which were considered and addressed.

The revised SDP is considered Official Use Only – Security-Related Information (OUO-SRI). The staff issued the revised UAO SDP in October 2015. The working group action for this issue is complete.

<u>Compensatory Measures Regulatory Issue Summary</u>

In SRM SECY-14-0088, the staff made a commitment to issue a generic communication to licensees to clarify what the NRC's expectations are for the implementation of compensatory measures. The NEI template for security plans includes commitments for compensatory measures that were based on the NRC-security orders issued following the September 11, 2001 terrorist attacks. In 2009, the NRC issued revisions to power reactor security requirements in 10 CFR Part 73 that changed the language relating to compensatory measures. The NEI security plan template has not been updated to align with these revised requirements. While licensees are not required to implement immediate compensatory measures in all cases, they are required to take an immediate action to assess the identified deficiency and determine the cause and impact of the deficiency on the site's protective strategy. This assessment is used to

determine the cause of the condition, assess the impact of the condition on the physical protection program, and evaluate when or whether a compensatory measure is required. To address this issue, the NRC staff committed to issue a generic communication to clarify when the NRC requires that compensatory measures be implemented by licensees.

The FOF TTP Working Group reviewed the staff commitment in SECY-14-0088 and recommended issuance of 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." This RIS reiterates the NRC's position on the requirements for implementation of compensatory measures. Consistent with the requirements in 10 CFR 73.55(o)(2)-(3), compensatory measures must provide a level of protection that is equivalent to the protection that was provided by the equipment, system, or component, before it was degraded or inoperable. Furthermore, they must be implemented within specific timeframes to ensure that the capability to detect, assess, interdict, and neutralize threats to the facility are maintained at all times. Additionally, compensatory measures must be described in the licensees' security plans. The RIS was issued for public comment in February 2016, following the Office of Nuclear Reactor Regulation's Generic Communications Process. The working group's action for this issue is complete.

NRC Public Outreach and Stakeholder Input

The working group solicited input from public interest groups, industry representatives, government agencies, and other interested members of the public on issues associated with the working group's activities. The working group held three public meetings and a workshop with the Department of Defense (DOD) and the Department of Energy (DOE).

The working group held its first public meeting on May 26, 2015. This was a Category 3 public meeting, the objective of which was to provide an overview and insight into the progress made by the working group. Working group members gave three presentations: (1) an overview of the working group; (2) an overview of the proposed revision to the SDP for UAOs; and (3) development of a generic communications on Compensatory Measures. No comments were received from the stakeholders (see ADAMS Accession No. ML15154B084).

On August 25, 2015, the working group conducted a Category 2 public meeting, titled "Force on Force - Tactics, Techniques and Procedures Working Group (Background, Tasks, Actions & Products Update.)" The objective of the meeting was for the NRC staff to update the public on the activities of the working group and to allow public interest groups and industry representatives to discuss regulatory issues associated with the working group's activities. At designated points identified on the agenda, the public was invited to ask questions. This stakeholder input (see ADAMS Accession No. ML15243A089) informed the working group's evaluation of the program.

The working group held its third public meeting on January 12, 2016. This was a Category 3 public meeting, the objective of which was to provide an overview of the working group's data collection and analytical process, its findings and draft recommendations (see ADAMS Accession No. ML16014A040).

The working group held a workshop with DOE and DOD on August 4, 2015. The goal of this meeting was twofold: (a) to engage our federal partners, on the topic of FOF performance exercises (i.e., inspections and assessments) and share with them the group's current program challenges and assessment activities; and (b) to solicit their observations and insights on those challenges and activities. The workshop focused on four specific topics:

1. Intelligence Assessment of Adversary TTPs;
2. Physical Protection Requirements;
3. Training and Qualification Requirements; and
4. Security Performance Evaluation Exercises.

The working group concluded that the NRC's current methodologies for simulations, evaluations and exercises are consistent with those employed by our Federal partners. The workshop highlighted that the issues experienced in the NRC's FOF inspection activities are similarly experienced by our Federal partners. The workshop also identified three areas of mutual interest and worthy of further collaboration: (a) intelligence/threat assessment; (b) inspector and adversary training; and (c) simulation control.

CONCLUSION:

The working group recommends that the staff develop guidance on mock adversary training and qualifications; controller training, qualification, and responsibilities, post-exercise critiques, and mission planning, training and qualification. Additionally, the working group recommends that the staff develop a formal information sharing program for FOF operational experience. Finally, the working group recommends that the staff submit a formal request (user need) to the Office of Research for the development of a reference document defining characteristics and effects of weapons and explosives. The working group determined these activities will provide more stable and predictable outcomes for the NRC's assessment of NRC-conducted FOF exercises and will improve licensee-conducted FOF drills and exercises.

The working group recommended a revision to the significance determination process for UAOs, which was issued in October of 2015. The working group also supported issuing a RIS, "Clarification on the Implementation of Compensatory Measures for Protective Strategy Deficiencies or Degraded or Inoperable Security Systems, Equipment, or Components," which was issued for public comment in February of 2016.

The working group does not recommend extension of its charter and does not see a need to continue its research beyond the recommendations provided in this report.