



Memorandum from the Office of the Inspector General

March 28, 2019

Timothy S. Rausch, LP 4A-C

REQUEST FOR FINAL ACTION – EVALUATION 2018-15549 – REQUIRED NUCLEAR TRAINING

Attached is the subject final report for your review and final action. Your written comments, which addressed your management decision and actions planned or taken, have been included in the report. Please notify us when final action is complete. In accordance with the Inspector General Act of 1978, as amended, the Office of the Inspector General is required to report to Congress semiannually regarding evaluations that remain unresolved after 6 months from the date of report issuance.

If you have any questions or wish to discuss our findings, please contact Heather R. Kulisek, Manager, Evaluations at (423) 785-4815 or E. David Willis, Director, Evaluations, at (865) 633-7376. We appreciate the courtesy and cooperation received from your staff during the evaluation.

David P. Wheeler
Assistant Inspector General
(Audits and Evaluations)
WT 2C-K

HRK:FAJ
Attachment
cc (Attachment):

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OIG File No. 2018-15549



Office of the Inspector General

Evaluation Report

To the Senior Vice President
and Chief Nuclear Officer

REQUIRED NUCLEAR TRAINING

Evaluation Team
Heather R. Kulisek
J. Lauren Pionke

Evaluation 2018-15549
March 28, 2019

ABBREVIATIONS

CR	Condition Report
ERO	Emergency Response Organization
eSOMS	Electronic Shift Operations Management System
LMS	Learning Management System
NSDP	Nuclear Standard Department Procedures
SPP	Standard Program and Processes
T&Q Records	Training and Qualification Records
TPD	Training Program Description
TRN	Nuclear Power Group Training Procedures
TVA	Tennessee Valley Authority

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MEMORANDUM DATED MARCH 22, 2019, FROM TIMOTHY S. RAUSCH
TO DAVID P. WHEELER



Evaluation 2018-15549 – Required Nuclear Training

EXECUTIVE SUMMARY

Why the OIG Did This Evaluation

According to a technical report issued by the International Atomic Energy Agency, a central challenge and requirement for ensuring the safety and reliability of nuclear power is to attain and maintain the qualification and competence of nuclear power plant personnel. The Tennessee Valley Authority's (TVA) nuclear training is categorized as either accredited or non-accredited training. The accredited training is subject to accreditation by the National Nuclear Accrediting Board. Therefore, this review focused on non-accredited nuclear training.

Due to training gaps identified in Evaluation 2017-15448, *TVA Nuclear's Process for Addressing the Nuclear Regulatory Commission's 2009 Confirmatory Order*, we initiated an evaluation of TVA's nuclear training. Our objective was to determine if required nuclear training was taken by TVA personnel. We limited the scope of our evaluation to the non-accredited training required for nuclear employees to perform the functions of nuclear security, fire brigade, and emergency preparedness as of December 2017.

What the OIG Found

We reviewed training completion records for a sample of employees assigned to fire brigade, nuclear security, and emergency preparedness roles and found not all required training was completed. Specifically, we found (1) 1 of 54 employees did not complete the required emergency preparedness training, and (2) 3 of the 91 employees who perform fire brigade functions were missing a quarterly training. In addition, we determined some employees who perform the nuclear security and emergency preparedness functions exceeded the time frames for completing training established in TVA procedures. Additionally, we identified opportunities for improvement regarding the (1) establishment, assignment, and tracking of training requirements and (2) logs used to document fire brigade member assignments.

What the OIG Recommends

We recommend the Senior Vice President and Chief Nuclear Officer (1) confirm missed training has been completed and (2) review and revise processes for establishing, assigning, and tracking training.



Evaluation 2018-15549 – Required Nuclear Training

EXECUTIVE SUMMARY

TVA Management's Comments

In response to our draft report, TVA management accepted the evaluation conclusions and recommendations and stated that actions have been, or will be taken, to address the recommendations. See the Appendix for management's complete response.

Auditor's Response

We concur with TVA management's planned and stated actions and will verify completion prior to closing the recommendations.

BACKGROUND

According to a technical report issued by the International Atomic Energy Agency, a central challenge and requirement for ensuring the safety and reliability of nuclear power is to attain and maintain the qualification and competence of nuclear power plant personnel, which includes operations, maintenance, management, and technical support personnel. The objectives of safety and reliability cannot be achieved solely by the quality of equipment and hardware, but also critically depend on sufficient numbers of personnel having the necessary qualification and competence to carry out their tasks and responsibilities.

The Tennessee Valley Authority (TVA) nuclear training is categorized as either accredited or non-accredited. Accredited training is subject to accreditation by the National Nuclear Accrediting Board and is outlined in TVA Training Program Descriptions (TPD). Some examples of accredited training include (1) non-licensed operator (initial and continuing training), (2) reactor operator (initial training), and (3) shift manager (initial training). Non-accredited training programs, relating to areas such as safe and reliable plant operation, health and safety of the public, and safety of plant personnel, are outlined in TPDs, Nuclear Power Group training procedures (TRN), and nuclear standard department procedures (NSDP).

TVA Nuclear Power Group Standard Program and Processes (SPP) 17.0, *Training*, describes training and qualifications for nuclear plant personnel. This evaluation focused on non-accredited nuclear training for fire brigade, nuclear security, and emergency preparedness.

Fire Brigade

The Fire Brigade Training TPD requires employees to successfully complete the Basic Fire Brigade Member Training curriculum¹ prior to being assigned as a fire brigade member. The TPD requires personnel classified as fire brigade leaders to complete the Fire Brigade Member-Advanced, Fire Operator, and Fire Brigade Leader curriculums. The curriculums include training that are required to be completed once, biannually, annually, biennially, and quarterly. A grace period of 25 percent of the time frame requirements² is established in TVA's procedures.

Nuclear Security

Nuclear security training requirements were outlined in NSDP 18, *Administration of Security Training*, and NSDP 44, *Graded Systematic Approach to Security Training*. The NSDPs outline regulatory required training and TVA specific training that is required on an annual basis. The training includes a practical

¹ TVA-SPP-17.008, *Use and Control of the Learning Management System*, defines a curriculum as a group of one or more items, medical examinations, and/or other activities that can be assigned to users and have its completion status tracked to fulfill a training requirement. An item in the curriculum is considered to be the smallest assignable unit, such as a course, briefing, or exam, whose assignment and completion can be tracked.

² The grace period would allow an annual training to be completed within 1 year and 3 months.

knowledge of the procedural implementation of security requirements; individual post techniques and skill level procedures; and weapons training and qualification on the issued security response rifle. Regulatory training requirements for nuclear security personnel are outlined in Code of Federal Regulations, Chapter 10, Part 73, Appendix B, *General Criteria for Security Personnel*. Appendix B states, "Annual requirements must be scheduled at a nominal twelve (12) month periodicity. Annual requirements may be completed up to three (3) months before or three (3) months after the scheduled date." TVA's NSDPs do not include a grace period.

Emergency Preparedness

Emergency preparedness training is governed by TRN-30, *Radiological Emergency Preparedness Training*, and TRN-34, *Accident Management Training*. TRN-30 provides a framework for developing and implementing an Emergency Response Organization (ERO) training and qualification program. This applies to personnel fulfilling onsite and offsite ERO positions, in addition to emergency preparedness staff. TRN-34, *Accident Management Training*, includes Severe Accident Management Guideline training and Extensive Damage Mitigation Guideline training. Severe Accident Management Guideline training is required for certain ERO personnel. The Extensive Damage Mitigation Guideline training is required for Operations and other appropriate personnel (e.g., maintenance, fire brigade, and ERO decision makers). TRN-30 allows for completion of annual training until the end of the quarter the training is due.

Nuclear training is tracked through TVA's Learning Management System (LMS). According to management, LMS curriculums and items are assigned to employees based on the requirements of their position. Due to training gaps identified in Evaluation 2017-15448, *TVA Nuclear's Process for Addressing the Nuclear Regulatory Commission's 2009 Confirmatory Order*, we initiated an evaluation of TVA's nuclear training.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of our evaluation was to determine if required nuclear training was taken by TVA personnel. The scope of this evaluation included non-accredited training required for nuclear employees to perform the functions of nuclear security, fire brigade, or emergency preparedness as of December 2017. To achieve the objective, we:

- Reviewed pertinent TVA SPPs and conducted interviews to determine how training is assigned and tracked.
- Reviewed applicable regulations to determine time frame requirements for nuclear security training.
- Performed searches of condition reports (CR)³ related to nuclear training to identify issues identified by TVA.

³ CRs are created to record how problems are found, analyzed, and solved.

- Compared LMS training records to the requirements in applicable TPDs, TRNs, and NSDPs to determine if required training was completed and timely. We selected all 91 employees who performed the fire brigade function in December 2017 and selected a sample of nuclear employees who performed the emergency preparedness or nuclear security function as follows:⁴
 - Nuclear Security – We statistically selected 72 of 488 employees who were on the roster provided by the sites to perform the nuclear security function in December 2017 using rate of occurrence estimation sampling with a 90-percent confidence level.
 - Emergency Preparedness – We statistically selected 54 of 3,217 nuclear employees responsible for emergency preparedness using rate of occurrence estimation sampling with a 90 percent confidence level.
- Compared the course training requirements in the curriculums listed in the Fire Brigade TPD and the Nuclear Security NSDPs to the LMS curriculums to determine if the required courses were included in the LMS curriculums. We could not compare the emergency preparedness training requirements because the individual courses were not listed in the TRN.

This evaluation was performed in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation*.

FINDINGS

We reviewed training completion records for a sample of employees assigned to fire brigade, nuclear security, and emergency preparedness roles and found not all required training was completed. Specifically, we found (1) 1 of 54 employees did not complete the required emergency preparedness training, and (2) 3 of the 91 employees who perform fire brigade functions were missing a quarterly training. In addition, we determined some employees who perform the nuclear security or emergency preparedness functions exceeded the time frames for completing training established in TVA procedures. Additionally, we identified opportunities for improvement regarding the (1) establishment, assignment, and tracking of training requirements and (2) logs used to document fire brigade member assignments.

NOT ALL EMPLOYEES COMPLETED REQUIRED TRAINING

We reviewed the training requirements defined in the TPDs, TRNs, and NSDPs, and compared the requirements to the LMS records for training completion for each employee in our samples. All employees in our nuclear security sample completed the training as required; however, not all employees who performed

⁴ The results of the statistical samples of employees cannot be projected onto the population since employees were included in the population who were not required to have the training. Anyone in our sample not required to have training was replaced.

the functions for emergency preparedness or fire brigade completed the required training.

One of the 54 employees did not complete a required emergency preparedness course in 2017. We determined the employee had not been assigned the emergency preparedness training course in LMS. According to TVA personnel, the individual should have been required to complete the training and was assigned the training in January 2019.

Additionally, 1 of the 91 employees who performed the function of a fire brigade member had not met all the training requirements. Part of the curriculum for Basic Fire Brigade Member Training is Nuclear Fire Brigade Quarterly Training. The training was added to the curriculum in September 2017. This employee worked on fire brigade on October 17, 2017, and did not complete the required quarterly training for the first time that year until October 26, 2017.

In addition, 2 of the 91 fire brigade members missed a quarterly training in 2017 and did not make it up. As part of the Fire Brigade Member Training, there is a quarterly training which rotates through eight different courses. According to the TPD, any individual who misses or fails to complete a recurrent training is placed in ineligible status until the training is made up. According to TVA personnel, employees should make up missed training. Both employees were assigned to the Fire Brigade in the fourth quarter of 2017. CR 1482892 has been initiated to determine if LMS is correctly tracking this quarterly training.

SOME TRAINING WAS NOT COMPLETED IN COMPLIANCE WITH TVA PROCEDURES

We determined all fire brigade employees who completed training requirements in 2017, completed the training within the grace period established in TVA procedures; however, we found some training for nuclear security and emergency preparedness was not completed within time frames established by TVA procedures. Specifically, 70 nuclear security and 3 emergency preparedness employees we reviewed exceeded the time frames established in TVA procedures.

Although federal regulations establish a grace period from 3 months before to 3 months after the training due date, TVA's NSDPs require nuclear security training be completed annually. While no nuclear security personnel exceeded the grace period allowed by federal regulations, 70 of 72 of the employees exceeded the annual requirement established in TVA's NSDP for at least one training course. In addition, emergency preparedness training requirements for 3 of the 54 employees were completed past the grace period allowed by TVA's TRN-30.

OPPORTUNITIES FOR IMPROVEMENT

Through the course of our review, we also identified opportunities for improvement with the (1) establishment, assignment, and tracking of training requirements and (2) logs used to document fire brigade member assignments.

Training Requirements Were Not Clearly Established

Training requirements were not clearly established for nuclear security in the NSDPs or for emergency preparedness in TRN-34. Clearly defining training requirements and grace periods could decrease the risk of an employee being unqualified for the nuclear security or emergency preparedness functions.

Nuclear Security

TVA personnel acknowledged that nuclear security training requirements were not clearly discernable in the NSDPs. Specifically, courses required by TVA outside of regulatory requirements and the number of classes/hours required for refresher training were not clearly defined. Since our review began, TVA management has taken steps to more clearly define training requirements. In addition, while Safeguard Information User training is a TVA required course, nuclear security training personnel consider this training to have a 3-month grace period. However, TVA training personnel consider this course to have a quarter-ending grace period like other TVA training.

Emergency Preparedness

TRN-34 states that Operations and other appropriate personnel (e.g., maintenance, fire brigade, and ERO decision makers) are to receive initial and continuing training on event mitigation strategies. According to TVA personnel, initial training on the strategies was provided to maintenance personnel; however, maintenance personnel were not required to receive continuing training. TRN-34 was not updated to reflect this change.

Some Employees Were Not Assigned Required Training

The emergency preparedness training curriculum was not assigned to 4 of 54 emergency preparedness employees. While 3 still completed the training as required, 1 of the 4 employees was missing a training course, as discussed above. TVA could reduce the risk of employees performing functions without required training if the appropriate curriculums are assigned to employees.

Tracking of Training Could Be Improved

We determined that the process used to track training could be improved. Reports generated based on LMS curriculums are used to determine who is qualified to perform nuclear security and fire brigade functions. However, we found LMS curriculums did not include all the courses included in Nuclear Security NSDPs and Fire Brigade TPD. In addition, we identified inaccuracies in both the LMS records and Training and Qualification Records (T&Q Records) for nuclear security personnel. According to TVA personnel, T&Q Records are permanent records that would typically be inspected by the Nuclear Regulatory Commission. The gaps in the tracking of nuclear security and fire brigade

training could result in assigning an employee to shift when they were not qualified and/or providing inaccurate information to the Nuclear Regulatory Commission.

Nuclear Security

According to TVA personnel, before an officer or supervisor performs the nuclear security function, the expectation is that their qualifications are verified. Each site confirmed that this verification is performed. However, upon review of the qualifications verified, we found (1) site qualification reports do not contain the same requirements at all three sites, and (2) three training requirements for security officers and supervisors were excluded from the curriculums and one regulatory required training was excluded from the officer training curriculum.

The reports used to verify training are generated using data in the LMS. During the course of our review, we found several training records were incorrect in both the LMS and T&Q Records maintained at the sites. We compared the LMS records to the T&Q Records maintained at the sites and found discrepancies in course completion dates and if courses had been completed. To determine what information was inaccurate, we compared the LMS and T&Q Records with the Training and Development Attendance Record.⁵ We determined that 18 of the 72 employees had an incorrect training date in LMS or on their T&Q Record in 2017.

Fire Brigade

Our comparison of the LMS curriculum for fire brigade members and leaders to the training requirements established in the Fire Brigade TPD identified discrepancies. For the Fire Brigade Member training, there were two instances where a course was listed as a substitute course option on either the TPD or LMS but not both. In addition, we found three discrepancies between Fire Brigade Leader training in the TPD and LMS. LMS listed two courses that were not included in the TPD. Additionally, the LMS curriculum required a course that was listed as voluntary in the TPD.

Log of Fire Brigade Assignments

While Browns Ferry Nuclear Plant's log of fire brigade members was accurate, there was not a conclusive record of the employees who were assigned to the Fire Brigade in December 2017 for Sequoyah or Watts Bar Nuclear Plants. To determine the employees who had been assigned to the Fire Brigade, we reviewed the Electronic Shift Operations Management System (eSOMS)⁶ Narrative Logs and/or Shift Records. For Sequoyah Nuclear Plant, there were 2 days where the eSOMS log only listed 4 members of the Fire Brigade when the minimum is 5. Watts Bar Nuclear Plant listed 2 employees in the eSOMS records that were not qualified to be assigned to the Fire Brigade. According to TVA personnel, these entries were inaccurate and other employees had been assigned to the Fire Brigade. Accurately tracking the employees assigned to the

⁵ The signed roster from the day the course was administered.

⁶ eSOMS is designed to provide a consistent, organized, and integrated approach to activities that affect equipment configuration and system status.

Fire Brigade could reduce the risk of an employee being assigned who is not qualified.

RECOMMENDATIONS

We recommend the Senior Vice President and Chief Nuclear Officer:

- Confirm that employees who missed a required training course have completed the training.
- Revise TRNs, TPDs, and NSDPs to clearly state the training requirements, expected time frames for completion (including grace periods), and the expectations for training that is missed.
- Compare training requirements in LMS to requirements in TRNs, TPDs, and NSDPs to determine if they accurately reflect the requirements.
- Review the process for determining if nuclear security personnel are qualified for shift assignment.
- Establish a process to keep an accurate record of the employees who are assigned to the Fire Brigade.
- Review the process for assigning emergency preparedness training, including event mitigation strategies, to employees to make sure all required training has been assigned to employees.
- Revise the process for maintaining training records in both LMS and T&Q Records to prevent inaccuracies.

TVA Management's Comments – In response to our draft report, TVA management accepted the evaluation conclusions and recommendations and provided planned and completed actions to address the recommendations. These actions include (1) ensuring training was completed for those employees who had missed a training, (2) comparing all nuclear TPD curriculums with LMS to ensure alignment, and (3) revising procedures as necessary. In addition, TVA management also provided comments regarding the relationship of the findings and conclusions in the draft report with the underlying related functions. See the Appendix for management's complete response.

Auditor Response – We concur with TVA management's planned and stated actions and will verify completion prior to closing the recommendations.

March 22, 2019

David P. Wheeler, WT 2C-K

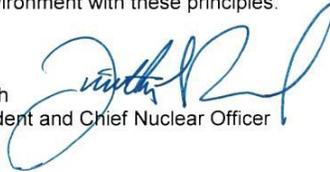
**RESPONSE TO REQUEST FOR COMMENTS ON DRAFT EVALUATION 2018-15549 –
REQUIRED NUCLEAR TRAINING**

In accordance with your request, I have reviewed the subject draft report and accept the evaluation conclusions and recommendations.

I find the report recommendations appropriate to promote actions that will address the concerns expressed in the conclusions of the report. The proposed actions that comprise our response with owners and due dates are presented in the Enclosure to this memorandum. These actions will be tracked and made available for follow-up assessment by your organization. The Enclosure includes some brief discussion regarding the relationship of the findings and conclusions in the draft report with the underlying related functions. The response to the request for comments, including actions in response to the recommendations, were reviewed with Heather Kulisek of your staff on March 18, 2019.

My team places a high value on training to ensure effective performance of nuclear personnel across all nuclear functions. Your report findings have identified an opportunity for action to align our work environment with these principles.

Timothy S. Rausch
Senior Vice President and Chief Nuclear Officer
LP 4A-C



Enclosure

Comments and Action Plan for Addressing OIG Recommendations in Draft
Evaluation 2018-15549 – Required Nuclear Training

Enclosure 1
Comments and Action Plan for Addressing OIG Recommendations in Draft
Evaluation 2018-15549 – Required Nuclear Training

The draft audit report identifies a number of important nuclear training related concerns and gaps. Overall perspective on the impact of the findings on those functional areas is provided below. In addition, the actions described in the table below are intended to be responsive to each of the specific recommendations made by the Office of Inspector General (OIG) in the draft report. The report identified observations related to training in several specific functional areas - Emergency Preparedness, Nuclear Security and Fire Operations.

Emergency Preparedness

TVA is obligated by regulation to ensure that individuals who are serving in an Emergency Response position are fully trained on the position that they are serving. When an individual is designated to qualify to serve on a specific Emergency Response Organization (ERO) position, they are assigned, via Learning Management System (LMS), the specific training modules and activities necessary to achieve and demonstrate their qualification. The timely completion of those assigned trainings is a matter of performance accountability between the individual and their supervisor.

Separately, prior to an individual being confirmed to be on duty in a particular duty week (ERO staffing is managed on a duty week basis), the status of their qualifications is systematically checked and verified prior to the individual taking the duty. If an individual is found to be deficient in the qualifications established for that position, they are not allowed to take the duty. The system used to confirm an individual's qualifications are current prior to assuming the duty is referred to as REPTrack. Specifically, Section 4.12 of TRN-30, "Radiological Emergency Preparedness Training", Revision 38, states:

REPTrack ensures that ERO weekly duty team members are trained before being assigned to an ERO duty position. REPTrack will not allow an individual to be placed on duty if that individual's training expires before the end of the duty week.

TVA acknowledges that as described in the Draft Report, instances have occurred where individuals assigned to complete ERO training modules in LMS were late in meeting their assigned LMS due dates.

Nuclear Security

TVA Nuclear Security is obligated by federal regulation to ensure nuclear security officers/supervisor shift positions are fully trained and qualified for their specific role and mission. Shift Security personnel are trained and qualified on specific task elements and modules with the combination of the task elements equating to specific security qualification levels. The task elements/modules are tracked and assigned through the nuclear security training department, and also in LMS. Knowledge and skill on the performance of each specific task elements/modules are demonstrated by each individual through performance evaluation where they demonstrate their qualifications. The timely completion of those assigned training and qualification is a matter of personal and supervision accountability with coordination of the nuclear security training department.

David P. Wheeler
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TVA Nuclear Security has confirmed, as did the OIG report, that all nuclear security completed training as required by regulation.

The OIG report found areas for improvement and opportunities to clearly align the TVA procedures to the regulation by adding the grace period to the definition of "annual" within the procedure definitions. The TVA Security procedures used the term "annual" and did not provide the specificity to clearly show the grace period, as the report states in the Findings section, there were security employees which exceeded the procedure timeline. The training personnel and security management accepted the term annual to include the grace period based on the higher tier documents definition of annual to include the grace period, the OIG identified the difference so the procedures are being revised to accurately define annual and to include the grace period language.

TVA procedures NSDP 44, Graded Systematic Approach to Security Training, and NSDP 18 Administration of Security Training are being changed to include the language from Appendix B of 10 CFR 73.55 to state: "Annual requirements may be completed at a nominal twelve (12) month periodicity" and that "Annual requirements may be completed up to three (3) months before or three (3) months after the scheduled date." This addition would have clarified the security individuals being determined to exceed the timeframes for completing training were actually in compliance, the procedure not having the clarification at the time of the audit showed the individuals as exceeding the TVA procedure.

OIG identified instances of LMS and the training and qualification (T&Q) not matching, this issue was resolved. The person entering the data from the T&Q sheets was using the date of data entry instead of the date the training was completed. A limited number of similar issues existed where LMS and T&Q did not reflect the same information, which were due to human error by an individual entering dates.

Prior to an individual being assigned to a security shift position each day, the qualifications are validated through LMS, this is done to ensure only trained and qualified individuals fill the duty positions. OIG identified the three (3) stations were completing this check, but the reports to validate the LMS qualifications were not consistent and in one case excluded a required training curriculum. TVA reviewed the LMS curriculum and made the correction and added clarifying information to NSDP 18. NSDP-4; Security Organization, Expectations and Standards, is undergoing a revision to address using a fleet consistent report to validate the LMS qualifications.

Fire Operations

TVA acknowledges that, as described in the Draft Report, weaknesses in fire brigade training requirements and log keeping exist and need resolution. TVA has verified that fire brigade minimum staffing at WBN and SQN for the issues noted were met and are supported by additional records. TVA has also verified the new quarterly training was not applicable to the identified fire brigade member since he had just qualified, but more guidance is needed when adding new requirements. TVA has verified the two individuals who did not complete their quarterly training at WBN have since completed this training and within the two year periodicity. The below actions will ensure the issues identified are corrected, extent of the condition is performed and actions are taken to prevent future gaps in completion of training and documentation of staffing in Fire Operations.

Actions in Response to TVA OIG DRAFT EVALUATION 2018-15549 – REQUIRED NUCLEAR TRAINING			
Recommendation 1			
Confirm that employees who have missed a required training course have completed the training.			
Action	Owner	Due Date	Comment
Action 1-1: Determine status of individual cited in report as incomplete for required EP training in 2017 is current in training.	Parshall	March 13, 2019	Complete - Verified that cited individual has completed required EP training and is current.
Action 1-2 Confirm that as of March 13, 2019, no employee on an ERO Duty team are late completing their required training.	Parshall	March 13, 2019	Complete
Action 1-3 Create quarterly report to Site and Corporate Executives of employee who are late in completing assigned ERO qualification training. This report will be evaluated for continuing value, and potential discontinuation no later than April 30, 2020.	Parshall	April 12, 2019	CR 1498674 - This is a quarterly supplement to the existing LMS features which automatically notify both employee and their supervisor of training that is coming due and overdue. LMS quarterly report created to be run at the beginning of the quarter to be provided to senior management.
Action 1-4: Correct the Curricula/LMS build for Fire brigade members to ensure completion of all 8 quarterly training requirements in a 2 year period.	Arcand	April 26, 2019	CR 1482892
Action 1-5: Ensure missed quarterly training has been completed for the 2 individuals at WBN.	Arcand	March 14, 2019	CR 1482892 - Training has been completed as of 3/13/19.

Actions in Response to TVA OIG DRAFT EVALUATION 2018-15549 – REQUIRED NUCLEAR TRAINING			
Recommendation 2			
Revise TRNs, TPDs and NSDP's to clearly state the training requirements, expected time frames for completion (including grace periods), and the expectations for training that is missed.			
Action	Owner	Due Date	Comment
Action 2-1: Review and revise TRN-34 as necessary to provide clarifications related to the initial and recurring training requirements for specific work groups identified in the procedure (e.g., maintenance).	Parshall	April 20, 2019	CR 1498749 - Remove training requirement for maintenance personnel from TRN 34.
Action 2-2: Review and revise TPD-FBT to clearly state the training requirements, expected time frames for completion (including grace periods and newly added requirements), and the expectations for training that is missed.	Fegley	April 26, 2019	CR 1496671
Action 2-3 Revise NSDP-18 to explicitly address the difference between the regulatory allowance for a 25% grace period and the current procedural requirement that training be completed annually.	Glover	June 30, 2019	CR 1497055

Actions in Response to TVA OIG DRAFT EVALUATION 2018-15549 – REQUIRED NUCLEAR TRAINING			
Recommendation 3			
Compare training requirements in LMS to requirements in TRNs, TPDs and NSDPs to determine if they accurately reflect the requirements			
Action	Owner	Due Date	Comment
Action 3-1 Perform review of position specific LMS curriculum against Attachment 3 of TRN-30.	Parshall	March 20, 2019	Complete Reviewed Attachment 3 and no incorrect curricula were contained.
Action 3-2 Perform review of NSDP-18 to confirm that all training required under 10 CFR 73.55 and appropriate industry guidance is included in appropriate NSDP and is consistent with requirements captured in LMS courses and curriculum. Make appropriate revisions to NSDP and LMS.	Glover	June 30, 2019	This action was completed and verified in Revision 14 of NSDP 18 Feb 12, 2019. CR1498952 to have another confirmation completed and documented in CAP.
Action 3-3 Review and revise TPD-FBT and LMS to ensure alignment.	Johnson	April 26, 2019	CR 1496671
Action 3-4 Compare all nuclear TPD curricula with LMS to ensure alignment.	McMullin	May 31, 2019	CR 1496671
Recommendation 4			
Review the process for determining if nuclear security personnel are qualified for shift assignment.			
Action	Owner	Due Date	Comment
Action 4-1 Revise NSDP-4 (or other appropriate procedure) to provide for more reliable validation that security personnel are current on required qualifications prior to assuming on shift duties.	Glover	April 30, 2019	CR 1433984

Actions in Response to TVA OIG DRAFT EVALUATION 2018-15549 – REQUIRED NUCLEAR TRAINING			
Action	Owner	Due Date	Comment
Recommendation 5			
Establish a process to keep an accurate record of the employees who are assigned to the Fire Brigade			
Action 5-1			
Verify that eSoms is the standard for keeping an accurate log of employees assigned to the Fire Brigade and is being properly utilized across the Nuclear fleet.	Fegley Nakamine	April 26, 2019	CR 1495947 CR 1497104
Recommendation 6			
Review the process for assigning emergency preparedness training, including mitigation strategies, to make sure all required training has been assigned to employees			
Action 6-1			
Review the process for assigning emergency preparedness training, including mitigation strategies, to make sure all required training has been assigned to employees.	Parshall	April 20, 2019	CR 1498695 HR reports listing everyone assigned to the 3 sites and corporate are being used to compare LMS assignments to onsite personnel. These lists will be reviewed by EP and LMS assignments will be generated. Evaluate CIP notifying EP of new NPG employees reporting to the sites and to corporate. Current assignments are made as EP is made aware of new site personnel.
Recommendation 7			
Revise the process for maintaining training records in both LMS and T&Q Records to prevent inaccuracies			
Action 7-1			
Add specific direction in NSDP 18 regarding data entry from T&Q to LMS.	Glover	April 30, 2019	CR 1497093