



Memorandum from the Office of the Inspector General

December 10, 2020

Thomas B. Marshall

REQUEST FOR FINAL ACTION – EVALUATION 2020-15743 – ORGANIZATIONAL EFFECTIVENESS – SEQUOYAH NUCLEAR PLANT RADIATION PROTECTION

Attached is the subject final report for your review and final action. TVA management's written comments, which addressed TVA's 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 Noel K. Kawado, Senior Auditor, at (865) 633-7348 or Lisa H. Hammer, Director, Evaluations – Organizational Effectiveness, at (865) 633-7342. We appreciate the courtesy and cooperation received from your staff during the evaluation.

David P. Wheeler
Assistant Inspector General
(Audits and Evaluations)

JLM:FAJ

Attachment

cc (Attachment):

TVA Board of Directors
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OIG File No. 2020-15743



Office of the Inspector General

Evaluation Report

To the Vice President,
Sequoyah Nuclear
Plant

ORGANIZATIONAL EFFECTIVENESS – SEQUOYAH NUCLEAR PLANT RADIATION PROTECTION

Audit Team

Noel K. Kawado
Justin B. Franklin

Evaluation 2020-15743

December 10, 2020

ABBREVIATIONS

ALARA	As Low as (is) Reasonably Achievable
CR	Condition Report
FY	Fiscal Year
NRC	Nuclear Regulatory Commission
RP	Radiation Protection
SQN	Sequoyah Nuclear Plant
TVA	Tennessee Valley Authority

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Evaluation 2020-15743 – Organizational Effectiveness – Sequoyah Nuclear Plant Radiation Protection

EXECUTIVE SUMMARY

Why the OIG Did This Evaluation

Organizational effectiveness, as defined in this evaluation, is the ability of an organization to achieve its mission and goals. Due to the importance of alignment between strategy, team engagement, and operational performance, the Office of the Inspector General is conducting organizational effectiveness evaluations of business units across the Tennessee Valley Authority (TVA). This evaluation focuses on the Sequoyah Nuclear Plant (SQN) Radiation Protection (RP) organization, which is an organization within TVA Nuclear.

SQN RP is responsible for conducting activities in ways that protect the radiological health of workers and the public by keeping radiation doses as low as (is) reasonably achievable. The objective of this evaluation was to identify factors that could impact SQN RP's organizational effectiveness. Specifically, we identified behavioral and operational factors that affect organizational effectiveness.

What the OIG Found

While we identified certain behavioral attributes that had a positive impact on SQN RP, we also identified behavioral risks that could, if not addressed, impact SQN RP's effectiveness and its continued ability to meet its responsibilities in support of SQN's mission. Specifically, we identified behavioral risks related to (1) relationships between individuals and (2) interactions with certain management. In addition, while we identified certain positive operational factors, we also identified operational risks which could hinder SQN RP's ability to execute its responsibilities and support Nuclear's vision and core principles. These risks related to (1) sampling for tritium and (2) training.

Based on our observations, we assessed SQN RP's level of risk related to behaviors and operations and determined risk to behaviors was high and risk to operations was medium. Ratings are reflected in the table below:

	Low Risk	Medium Risk	High Risk
Behaviors			X
Operations		X	



Evaluation 2020-15743 – Organizational Effectiveness – Sequoyah Nuclear Plant Radiation Protection

EXECUTIVE SUMMARY

What the OIG Recommends

We recommend the Vice President, SQN, address concerns related to (1) interactions between individuals within SQN RP, (2) relationships with management personnel, (3) tritium sampling, and (4) training.

TVA Management's Comments

TVA management described actions taken and planned to address our recommendations. See Appendix B for TVA management's complete response.

Auditor's Response

We agree with management's planned actions and actions taken.

BACKGROUND

Organizational effectiveness, as defined in this evaluation, is the ability of an organization to achieve its mission and goals. Due to the importance of alignment between strategy, team engagement, and operational performance, the Office of the Inspector General is conducting organizational effectiveness evaluations of business units across Tennessee Valley Authority (TVA). This evaluation focuses on the Sequoyah Nuclear Plant (SQN) Radiation Protection (RP) organization, which is an organization within TVA Nuclear.

SQN RP is responsible for conducting activities in ways that protect the radiological health of workers and the public by keeping radiation doses as low as (is) reasonably achievable (ALARA). According to the Nuclear Industry Standard Process RP-011, *Radiation Protection Fundamentals*, Radiological Protection professionals achieve protection of plant personnel and the public by implementing a robust program that includes a strong foundation of fundamentals and a culture that strives for continuous improvement. SQN RP consists of four departments: RP, ALARA Support, Technical Support, and Radwaste.

- RP personnel are responsible for implementing the field aspects of the RP program, providing direction and oversight for control measures concerning personnel exposure to radioactive materials and associated radiation during both routine nuclear operations and emergency situations, ensuring the provision of technical expertise in the areas of radiological surveillances in the field as well as radiological monitoring and assessment, ensuring that all maintenance and operational activities are conducted ALARA, and in a safe and efficient manner.
- The ALARA Support department's main objective is to minimize radiation exposure to employees and the public. The department's responsibilities include implementing the station ALARA program through the activities of ALARA planning or using techniques such as lead shielding,¹ flushing,² and technology to reduce radiation exposure.
- The Technical Support department has responsibilities that may include maintaining radiation exposure records as well as radiation monitoring equipment. The department also helps with the development and implementation of the site RP program for dosimetry,³ respiratory protection, and RP's instrument calibration, functional test, and control.
- The Radwaste department is comprised mainly of Radwaste Shippers and Laborers and ensures compliance with Nuclear Regulatory Commission (NRC) regulations for packaging, characterization, classification, and physical form determination of the material, including the Department of Transportation

¹ Lead shielding is a barrier that provides protection from penetrating radiation such as gamma rays and neutrons.

² Flushing is a way to reduce hotspot build up.

³ The theory and application of principles and techniques involved in measuring and recording doses of ionizing radiation.

regulations for shipment and NRC/Department of Transportation security plan requirements.

As of July 6, 2020, SQN RP consisted of 46 individuals, including 36 employees, 5 supervisors, 4 superintendents, and the senior manager. A senior secretary, who officially reports to SQN Work Management, also performed administrative tasks for SQN RP. According to management, as of July 8, 2020, there were also eight contractors that were performing work for SQN RP.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this evaluation was to identify factors that could impact SQN RP's organizational effectiveness. We assessed operations as of August 28, 2020, and culture at the time of our interviews and fieldwork, which occurred between July 13, 2020, and August 20, 2020. To complete the evaluation, we:

- Reviewed TVA Nuclear's Fiscal Year (FY) 2020 through FY 2022 business plan and TVA's FY 2019 Strategic Business Unit/Business Unit Risk Assessment Summary to gain an understanding of SQN RP's initiatives and/or risks.
- Reviewed TVA values and competencies (see Appendix A) for an understanding of cultural factors deemed important to TVA.
- Reviewed Nuclear Industry Standard Processes, Nuclear Power Group Standard Programs and Processes and guidance from the Electric Power Research Institute to gain an understanding of processes relevant to SQN RP.
- Conducted individual interviews with 54⁴ individuals, which included management, eight contractors and a senior secretary, and analyzed the results to identify themes related to factors that could affect organizational effectiveness.
- Surveyed and/or interviewed a nonstatistical sample of 86 individuals from other SQN organizations that have interactions with SQN RP personnel and interviewed four individuals responsible for supporting SQN RP. We analyzed results to identify factors affecting organizational effectiveness from a business partner perspective.
- Accessed Maximo⁵ to obtain condition reports (CR) related to SQN RP operational issues having a date reported of October 1, 2017, through September 8, 2020.
- Assessed the overall effectiveness of SQN RP in behavioral and operational aspects based on TVA's Business Operating Model.

⁴ According to SQN RP management, one individual was on leave at the time we conducted our interviews; therefore, that individual was not interviewed.

⁵ Maximo is TVA's Enterprise Asset Management system.

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

OBSERVATIONS

During the course of our evaluation, we identified behaviors that had a positive impact on SQN RP. However, we also identified behavioral risks that could, if not addressed, negatively impact SQN RP's effectiveness and its continued ability to meet its responsibilities in support of SQN's mission. Specifically, we identified behavioral risks related to (1) relationships between individuals and (2) interactions with certain management. In addition, while we identified certain positive operational factors, we also identified operational risks which could hinder SQN RP's ability to execute its responsibilities and support Nuclear's vision and core principles. These risks related to (1) sampling for tritium and (2) training.

BEHAVIORAL FACTORS

According to the Society for Human Resource Management (SHRM),⁶ employee engagement relates to the level of an employee's connection and commitment to the organization. In addition, SHRM specifies drivers of employee engagement, including commitment of leaders, trust in leadership, and positive relationships with supervisors. TVA, in its Business Operating Model, states that engagement is one component of effective execution. TVA has also developed competencies intended to define common characteristics that set the tone for how work is to be performed in the organization. Defined behaviors are associated with the competencies to provide guidance as to how employees can demonstrate their commitment to TVA values. Furthermore, the Nuclear Operating Model states that "Employee engagement is a workplace approach resulting in the right conditions for all members of an organization to give of their best each day, committed to their organization's goals and values, motivated to contribute to organizational success."

While individuals interviewed generally expressed having positive relationships with others in their own department and other departments, several individuals within certain groups expressed concerns with those interactions. In addition, many employees were positive regarding their interactions with most levels of their management. However, some individuals expressed concerns regarding their relationship with various management personnel.

Interactions Between Coworkers Within and Between Departments

As a whole, most employees⁷ expressed having positive relationships with individuals in their own department as well as other departments within SQN RP

⁶ SHRM is a membership organization for Human Resource professionals.

⁷ The term employees, as used in this report, includes annual employees and contractors.

and indicated they trusted their coworkers to do their jobs well. However, several individuals in one department expressed concerns related to their interactions with their coworkers. For example, some of these individuals expressed relationship concerns between annual and contractor employees, with a subset indicating that they may not trust a few of their coworkers to do their job. Some employees in this department also expressed concerns with a particular contractor not demonstrating behaviors consistent with TVA's values and competencies. In another department, some individuals expressed concerns about getting support from personnel in another department in SQN RP. Finally, several individuals from two groups expressed trust concerns related to another group's job performance. Specifically, those individuals indicated that the performance or timely communication of survey or sampling results by RP personnel, could be improved, with a couple of these individuals indicating that inadequacies in surveys could have resulted in radiation dose intakes. Based on these concerns we reviewed CRs and identified six CRs between October 1, 2017, and September 8, 2020, related to surveys and/or documentation issues with RP Technicians. Examples of issues identified included nonadherence to procedures or standards related to survey information, missing surveys, and inadequacies in communication of radiological information, which are consistent with the concerns expressed by certain individuals.

Relationships with Management

Within SQN RP, employees within ALARA Support, Technical Support, and Radwaste report to their respective department's superintendent as their first-line manager and consider the senior manager as middle management and the plant manager as their upper manager. Conversely, most employees in the RP department report directly to the RP supervisors, and consider the RP superintendent their middle manager. For these individuals, the senior manager is considered their upper manager. Overall, many individuals who responded were positive regarding their interactions with most levels of their management. However, some individuals expressed concerns regarding their relationship with certain management personnel.

Positive Interactions with Certain Management

Based on interviews, most employees who responded were positive regarding their interactions with their first-line management. In particular, several individuals, including those from RP and other departments, expressed positive comments about the RP Superintendent, who started working for SQN RP and TVA in February 2020. Comments shared described the superintendent as helpful, consistent with messaging and leading the group in the right direction. Several individuals also commented that the RP superintendent acts as buffer between employees and other management.

Relationship Concerns with Certain Other Management

Based on interviews, relationship concerns were expressed about two members of management. Regarding one of the managers, several individuals expressed concerns regarding trust. For example, some individuals indicated that this manager may not exercise care when sharing information with others. A few individuals also indicated that they may not feel comfortable to express a

different opinion from or report incidents to this manager. In addition, several individuals indicated that this manager could improve on holding employees accountable, with a couple of individuals indicating that the behaviors of certain individuals are overlooked. Some individuals indicated their belief that this manager may favor certain individuals or a group of individuals.

Concerns expressed about the second manager were related to communication and trust. Regarding communication, several individuals expressed that this manager does not ask for or is not receptive to opinions and/or feedback, with some of these individuals indicating that the manager already has their mind made up. A couple of individuals indicated that the manager may ask for opinions only as a matter of formality. Similarly, several individuals expressed concerns about feeling uncomfortable to disagree with this manager, with a few individuals indicating that the manager may not appreciate it if the manager's views are challenged or a differing opinion is expressed. Furthermore, few individuals indicated that this manager does not or would not take any action regarding concerns or questions. In addition, some individuals expressed that this manager demonstrates a lack of interpersonal skills. Regarding recognition, a few individuals expressed that the manager is more focused on areas needing improvement versus positive achievements, while a few other individuals indicated that the manager attaches negative comments when verbal recognition is provided. Likewise, some individuals expressed their perception that the way in which the manager has previously recognized performance is unfair. Finally, some individuals expressed concerns about the manager's lack of clear communication related to direction, expectations, and/or goals.

With respect to trust, several individuals indicated that the manager micromanages the work of individuals and/or goes outside the chain of command to direct work of others. Specifically, a few of these individuals indicated that the manager may direct changes to work or plans that are in progress. In addition, some individuals indicated their perception that the manager's micromanaging could cause workers to believe that the manager does not trust them to do their work and/or to lose confidence in themselves in completing their work. As well, a few individuals indicated that this micromanagement has had a negative impact on morale. With respect to support of employees, several individuals indicated their belief that the manager would not have their backs.

Finally, when asked about SQN RP's ethical culture or the existence of fraud, some individuals described an event where an SQN RP individual was exposed to radiation and the initial calculation of the individual's radiation dosage required certain reporting. These individuals expressed their perception that the manager made several attempts to have the dosage recalculated to see if the calculated amount could come in below the reporting threshold so as to avoid certain reporting requirements. Based on our review of documentation, we confirmed that calculated dosage was reported to the NRC. Based on our discussions with an individual in SQN RP, the initial calculations were relatively close to the NRC reporting threshold, so additional calculations were performed to ensure that reporting was necessary.

Other Relationship Concerns

Based on our interviews, we also identified concerns related to lack of accountability by certain other management. Specifically, several individuals in one group expressed concerns related to lack of accountability by their management, with a few individuals indicating that management may have a preference for avoiding confrontation. In addition, a couple of individuals indicated that personnel performance issues are not always addressed.

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SQN RP, as part of TVA Nuclear, is responsible for conducting activities in ways that protect the radiological health of plant personnel, as well as the public. While many individuals provided positive comments related to engagement, in our opinion, the employee and management behavioral issues identified above may negatively impact SQN RP's organizational effectiveness and their ability to protect the radiological health of plant personnel. Failure to adequately address these concerns could hinder SQN RP from achieving its responsibilities.

OPERATIONAL FACTORS

Based on our interviews, we identified positive operational factors related to support from departments outside of SQN RP and adequacy of resources to do the work. In addition, based on surveys conducted, we noted positive feedback from personnel in organizations outside of SQN RP regarding certain aspects of support from individuals in SQN RP. However, we identified operational risks, related to sampling for tritium and training, which could hinder SQN's ability to execute its responsibilities and support Nuclear's vision and core principles.

Positive Operational Factors

Most individuals, including both management and employees, mentioned having positive experiences with departments outside of SQN RP. As noted previously, we requested feedback from personnel in other SQN organizations that have regular interactions with SQN RP personnel. The majority of respondents provided positive ratings related to SQN RP's quality of feedback and communication, timeliness in responding to requests, and quality of products and services. In addition, most individuals in SQN RP indicated that they felt they had the necessary resources to do their job, with a few individuals commenting that if they did not have a necessary tool/equipment, management would provide that for them.

Operational Risks

Based on our interviews and review of documentation, we identified two operational risks. Specifically, concerns were expressed related to whether sampling for tritium in used oil was being conducted in accordance with TVA procedures. In addition, we identified a risk related to the adequacy of training.

Sampling for Tritium

Based on our interviews, some individuals indicated that used oil was not consistently being analyzed for the presence of tritium. According to the Electric

Power Research Institute document, *Methodology for the Evaluation of Used Oil for Radiological Contamination (Focusing on Hard-to-Detect Radionuclides, Tritium, and Carbon-14)*, dated September 2019, used oil that is generated as part of a nuclear plant's normal operations has potential to be contaminated with radiation. This document stated that U.S. regulations⁸ require licensees, in order to appropriately dispose of used oil, to conduct a reasonable survey of the oil to determine if it is contaminated with radionuclides, including tritium, and that failure to perform such survey constitutes a violation of NRC requirements. Nuclear Industry Standard Process (NISP) RP-007, *Control of Radioactive Material*, which TVA has adopted as a procedure, states that liquids are to be analyzed for tritium if there is the potential for tritium activity to be present at a specific level. NPG-SPP-05.1, *Radiological Controls*, states that liquids shall be monitored to no detectable activity above background with detection limits for tritium set to less than or equal to 2,000 picocuries per liter (pCi/l).

Based on our review of CR information in Maximo, we identified a November 2, 2019, CR describing that five drums of used oil from SQN Unit 1 was initially scheduled for free-release, but was halted when a team member raised a concern about the potential for tritium in the oil. The CR indicated that samples of the oil were subsequently analyzed by an off-site lab, which determined the presence of tritium between 4,200 and 6,500 pCi/l, or approximately two to three times the lower limit of detection (LLD) noted in the current version of NPG-SPP-05.1. Once the oil tested positive for tritium, it was scheduled to be shipped to an outside company for proper processing as waste. The CR referenced an email, dated December 5, 2019, from the SQN RP senior manager to his staff, which contained expectations regarding what conditions require tritium sampling.

Used oil that is not properly tested could contain tritium levels above the threshold specified in NPG-SPP-05-1 and could be free-released and expose members of the public to that tritium without their knowledge. According to the NRC, exposure to tritium could pose some health risks, including the increased occurrence of cancer.

As noted above, expectations regarding tritium sampling had been previously communicated to SQN RP staff in December 2019, which occurred prior to our interviews where concerns about tritium were expressed. According to the SQN RP senior manager, a procedure related to requirements for tritium sampling is currently being reworded to clarify expectations. We were unable to determine whether the procedure is not consistently being followed, or if there are other reasons for concerns related to tritium sampling. However, based on the concerns above, we plan to initiate a separate evaluation over the tritium sampling process within TVA Nuclear.

⁸ Including Title 10, Code of Federal Regulations (CFR), Part 20 (10 CFR § 20), *Standards for Protection against Radiation*, and 10 CFR § 61, *Licensing Requirements for Land Disposal of Radioactive Waste*.

Training

Several individuals expressed concerns with the adequacy of training. For example, a few individuals indicated that there is not enough training in general. Some individuals also indicated that one of the SQN trainers did not have enough experience and/or knowledge to administer training for SQN RP personnel. In addition, a couple of individuals indicated that errors were identified related to tests that were given as part of training.

Our discussions with the SQN RP senior manager indicated that SQN RP has been working with the SQN Training group to improve the training experience. The senior manager stated there have been some improvements with two recent training sessions that were recently conducted and positive feedback has been received from employees. However, the senior manager acknowledged that there is still room for improvement in this area.

CONCLUSION

SQN RP has an important role in protecting the radiological health of workers and the public by keeping doses as low as possible. To execute this role effectively, it is necessary for employees to be connected and committed to the organization. While interviews with individuals revealed generally positive relationships between coworkers, some individuals in certain groups expressed concerns with those interactions, including issues related to behaviors inconsistent with TVA's values and competencies, inadequate support, and trust concerns with work products. In addition, while individuals provided positive comments about their relationship with certain management, interviews also disclosed behavioral issues with various management personnel, related to trust, communication, offering differing opinions, and/or accountability.

Regarding interactions with external organizations, most employees provided positive comments related to support from organizations outside SQN RP. Similarly, survey feedback from personnel from other SQN organizations about SQN RP personnel were generally positive. Furthermore, individuals indicated they have the resources needed to do their jobs. However, we also identified risks related to whether sampling for tritium in used oil was being consistently performed and the adequacy of training. Addressing these risks can better provide for the radiological safety of SQN employees and the public.

RECOMMENDATIONS

We recommend the Vice President, SQN:

1. Address concerns related to interactions between individuals.

TVA Management Comments – The SQN RP organization has restructured reporting relationships and work area locations to align work groups that had challenging relationships and remove barriers to teamwork. Additionally, roles and responsibilities of some leaders and individual contributors in the

group have been reassigned to break down barriers and improve collaboration. Offsite team building and personnel actions have also been used to improve teamwork and collaboration between annual and contractor employees.

Auditor's Response – We agree with management's actions taken.

2. Address concerns related to relationships with management personnel.

TVA Management Comments – RP management has been enrolled in additional leadership training. Organizational changes and a renewed focus on celebrating successes are being used to assist building trust in management.

Auditor's Response – We agree with management's actions planned and taken.

3. Address concerns related to tritium sampling by (1) ensuring all used oil and other liquids are properly tested for tritium prior to shipment, as applicable, and (2) consider the benefit of implementing on-site sampling capability.

TVA Management Comments – All oil and liquid samples removed from the RCA are either monitored for tritium prior to release or shipped to a licensed facility and no liquids are unconditionally released from the site. Procedure NPG-SPP-05.1, *Radiological Controls* has been revised to eliminate any ambiguity concerning the requirements for monitoring for release of oils and other liquids. The site has the capability to analyze water for tritium, however, analysis of oil for tritium requires specialized equipment, processing methods, and skills that make onsite analysis impractical.

Auditor's Response – While we recognize that the procedure revision may eliminate ambiguity around requirements for tritium monitoring and that onsite analysis of oil for tritium is impractical, TVA management must ensure that tritium sampling is consistently occurring, as applicable, to protect the public from exposure. To address this concern, on November 19, 2020, the Office of the Inspector General initiated an evaluation to determine if TVA Nuclear is taking appropriate steps before releasing potentially contaminated liquids from its nuclear sites.

4. Address concerns related to training.

TVA Management Comments – RP and training personnel have worked to improve the training experience and will continue to do so. RP leadership communicated with all department personnel to provide feedback on concerns with training. RP continuing training is provided on an annual basis based on the systemic approach to training. The RP instructor, who has been in place for 3 years and is a fully qualified instructor, has worked in the plant during outages, observed special RP tasks while they are being performed, and walked systems and components in the plant to better prepare to develop

and instruct RP technicians. A review of 2020 exams administered showed no exam questions were technically inaccurate.

Auditor's Response – We agree with management's actions planned and taken.

TVA Values	
Safety	We share a professional and personal commitment to protect the safety of our employees, our contractors, our customers, and those in the communities that we serve.
Service	We are privileged to be able to make life better for the people of the Valley by creating value for our customers, employees, and other stakeholders. We do this by being a good steward of the resources that have been entrusted to us and a good neighbor in the communities in which we operate.
Integrity	We conduct our business according to the highest ethical standards and seek to earn the trust of others through words and actions that are open, honest, and respectful.
Accountability	We take personal responsibility for our actions, our decisions, and the effectiveness of our results, which must be achieved in alignment with our company values.
Collaboration	We are committed to fostering teamwork, developing effective partnerships, and valuing diversity as we work together to achieve results.

TVA Leadership Competencies

Accountability and Driving for Results
Continuous Improvement
Leveraging Diversity
Adaptability
Effective Communication
Leadership Courage
Vision, Innovation, and Strategic Execution
Business Acumen
Building Organizational Talent
Inspiring Trust and Engagement



Tennessee Valley Authority, PO Box 2000, Soddy-Daisy, Tennessee 37384

December 3, 2020

TO: David P. Wheeler, Assistant Inspector General

FROM: Scott Hunnewell, SQN Plant Manager

RE: Organizational Effectiveness Response to OIG Evaluation 202015743

We appreciate the efforts taken by the audit team in conducting this evaluation. We value the feedback from our employees and members of other Sequoyah organizations and agree with the recommendations provided in the report. The specific actions that have been taken or that are in progress are as follows:

1. The SQN RP organization has restructured reporting relationships and work area locations to align work groups that had challenging relationships in order to remove barriers to teamwork. Additionally, roles and responsibilities of some leaders and individual contributors in the group have been reassigned to break down barriers and improve collaboration. Offsite team building, as well as, personnel actions have also been used to improve teamwork and collaboration between annual and contractor employees.
2. RP management personnel have been enrolled in additional leadership training. Additionally, the organizational changes mentioned above, as well as, a renewed focus on celebrating successes is being used to assist in building trust in management.
3. All oil and liquid samples removed from the RCA are either monitored for tritium prior to release or shipped to a licensed facility. No liquids are unconditionally released from the site without analysis for both gamma emitters and tritium. Procedure NPG-SPP-05.1, *Radiological Controls*, has been revised to eliminate any ambiguity concerning the requirements for monitoring for release of oils and other liquids. The site currently has the capability to analyze water for tritium, however, analysis of oil for tritium requires specialized equipment, processing methods, and skills that make onsite analysis impractical.
4. As stated in the report, RP and training personnel have and will continue to work to improve the training experience. RP leadership has also communicated with all department personnel to provide feedback on their concerns with training. Selection of Training: RP continuing training provided on an annual basis is based on the systematic approach to training. Tasks that are selected for continuing training are assigned a frequency to be covered. Continuing training frequencies are selected, reviewed, and approved by Curriculum Review Committees, which RP Technicians are members. Continuing training also contains training related to performance gaps identified by RP Technicians and RP Management. Technicians are requested to provide training topics that they feel would improve their performance or help maintain their proficiency. These

topics are reviewed during the RP Curriculum Review Committee and ones that are approved are entered into the training processes to develop and implement. Additionally, continuing training is provided for regulatory required topics with a periodicity established based on the rules that require the topics be taught. There is no guideline or requirement to train RP Technicians a certain number of hours per year. The hours provided are based on the above inputs. Instructor Experience: The RP instructor has been in place for three years and has worked in the plant during outages and has observed special RP task while they are being performed. The instructor has walked systems and components in the plant to better prepare to develop and instruct RP Technicians. The RP instructor retired from the Navy with 20 years of RP and Chemistry training and experience and is a fully qualified instructor at Sequoyah. Exam errors: A review of 2020 exams administered showed no exam questions were technically inaccurate. Several questions were enhanced based on feedback, but where correct as stated.