

Torres, RobertoJ

From: Buehrle, Alex <Alex.Buehrle@ur-energy.com>
Sent: Friday, October 19, 2018 4:53 PM
To: Torres, RobertoJ
Cc: Cash, John
Subject: [External_Sender] RE: NRC request for additional information
Attachments: 20181019 Request to Allow RSO to Perform Training for Logging.pdf

Mr. Torres,

Attached to this email is the corrected signed cover letter and supporting documentation answering the request for additional information received via email on 9/26/18, shown below.

Thank you,
Alex Buehrle
Ur-Energy
Corporate Radiation Safety Officer
3424 Crooks Gap Rd
Wamsutter, WY 82336
O: (307) 265-2373 ext 412
C: (720) 988-7276

From: Torres, RobertoJ <RobertoJ.Torres@nrc.gov>
Sent: Wednesday, September 26, 2018 11:12 AM
To: Buehrle, Alex <Alex.Buehrle@UR-Energy.com>
Subject: NRC request for additional information

Mr. Buehrle, RSO:

The NRC has initiated the processing of Mr. Cash's amendment request letter dated July 30, 2018 (see attached). The request in the letter described as RSO to provide training to qualified geophysical loggers can be approved. However additional information is needed since the attached letter contains an error that needs to be corrected (reference to an outdated NUREG-1556 and reference to an incorrect Appendix). Please provide the following information using the correct NUREG, and resubmit corrected signed and dated letter with supporting documentation as a pdf file by reply email.

1. NUREG-1556, Volume 14, revision 1, was issued on April 2018 (see attached). Provide the information described in Item No. 8 in Appendix B (pages B-6 and B-7) related to "Training for logging supervisors and logging assistants" (see excerpt below).
2. Appendix F of NUREG-1556, Volume 14, revision 1, contains "Well logging supervisor and well logging assistant training requirements". The training to be developed by the RSO must follow the criteria in Appendix F for the NRC to grant approval. You can use the criteria in Appendix F to develop the RSO led training program.

Item No.	Title and Criteria	Yes	N/A	Description Attached
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8.	TRAINING FOR LOGGING SUPERVISORS AND LOGGING ASSISTANTS <ul style="list-style-type: none"> • Submit the training program to be given to new logging supervisors and logging assistants. • Provide a copy of a typical examination and the correct answers to the examination questions. Indicate the passing grade. 			<input type="checkbox"/> <input type="checkbox"/>
8.	TRAINING FOR LOGGING SUPERVISORS AND LOGGING ASSISTANTS (Continued) <ul style="list-style-type: none"> • Specify the qualifications of the instructors for radiation safety principles and describe their experience with well logging activities. If training will be conducted by someone outside the applicant's organization, identify the course by title, provide the name, address, and telephone number of the company providing the training, and provide a course outline (if available). • Describe the field (practical) examination that will be given to prospective logging supervisors and logging assistants. • Describe the annual refresher training program, including topics to be covered and how the training will be conducted. • Submit a description of the program for annual safety reviews of the job performance of each well logging supervisor, as described in 10 CFR 39.13(d). 			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Thank you for your cooperation.

Roberto J. Torres, M.S.
Senior Health Physicist
U.S. Nuclear Regulatory Commission, Region IV
1600 East Lamar Boulevard
Arlington, TX 76011-4511
817-200-1189



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Oct 19, 2018

Mr. Roberto Torres
Senior Health Physicist
U.S. Nuclear Regulatory Commission
Region IV
1600 East Lamar Blvd
Arlington, TX 76011-4511

Re: Logging Supervisor Training Request
License No. 05-29252-01
Docket No. 030-37410
Control No. 471397

Dear Mr. Torres,

Ur-Energy maintains a licensed tritium source Prompt Fission Neutron (PFN) geophysical logging tool for uranium exploration. Some months ago, our sole Logging Supervisor left the company for another job. Since that time our RSO has ensured the proper storage and inspection of the PFN tool. We would like to train two of our existing employees to be Logging Supervisors but, unfortunately, it seems this type of logging tool has fallen out of favor and we can't find a qualified contractor or other source to provide training. Therefore, with this letter, we are seeking permission to allow our RSO to perform the training: including classroom and field portions. The two employees we wish to train are both degreed geologists with over ten years of experience each as radiation workers under a 10 CFR Part 40 uranium recovery license. Both potential trainees are also qualified geophysical loggers using our non-PFN tools and equipment.

The RSO would ensure training covers all relevant aspects of our Radiation Protection Program, Appendix F of NUREG 1556 Volume 14 Revision 1, and 10 CFR 39. Following the class room and field training, the students will be required to pass a written examination and demonstrate understanding by passing a practical field exam. Until a candidate has become fully qualified, the RSO will verify all work involving the PFN tool is being performed in a safe and compliant manner.

On September 26, 2018, we received from your office, via email, a request for this updated cover letter and a request for additional information pertaining to our Logging Supervisor training request. Please find behind this cover letter the information requested. All referenced descriptions are attached, in order listed, as excerpts from their main documents.

Thank you for your consideration in this matter, feel free to contact me or Mr. John Cash, the Vice President, if you have any questions.

UR-Energy USA, Inc
NRC License No. 05-29252-01, Docket No. 030-37410
Amendment Request

Regards,

A handwritten signature in cursive script, appearing to read "Alex Buehrle".

Alex Buehrle
Corporate RSO, Ur-Energy USA Inc.

Cc: Mrs. Theresa Horne, Ur-Energy Littleton Office

Item No.	Title and Criteria	Yes	N/A	Description Attached
7.	<p>INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE</p> <p>Radiation Safety Officer (RSO)</p> <ul style="list-style-type: none"> The name of the proposed RSO who will be responsible for ensuring that the licensee's radiation protection program is implemented in accordance with approved procedures. <p>Name: _____</p> <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> Demonstrate that the RSO has sufficient independence and direct communication with responsible management officials by providing a copy of an organizational chart by position, demonstrating day-to-day oversight of the radiation safety activities. <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> Provide documentation demonstrating that the proposed RSO is qualified by training and experience (e.g., certificate of completion of a well logging RSO or authorized user's course or an equivalent course that meets the logging supervisor criteria specified in Appendix F of this NUREG). <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Provide documentation demonstrating that the proposed RSO is qualified by training and experience (e.g., Board Certification by the American Board of Health Physicists; completion of a bachelor's or master's degree in the sciences with at least one year of experience in the conduct of a radiation safety program of comparable size and scope; or formal training in the establishment and maintenance of a radiation protection program) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Provide alternative information demonstrating that the proposed RSO is qualified by training and experience (e.g., listed by name as an authorized user or the RSO on an NRC or Agreement State license that requires a radiation safety program of comparable size and scope). 	<p>[]</p> <p>[]</p> <p>[]</p> <p>[]</p> <p>[]</p>	<p>[]</p> <p>[]</p> <p>[]</p> <p>[]</p> <p>[]</p>	<p>[]</p> <p>[]</p> <p>[]</p> <p>[]</p> <p>[]</p>
8.	<p>TRAINING FOR LOGGING SUPERVISORS AND LOGGING ASSISTANTS</p> <ul style="list-style-type: none"> Submit the training program to be given to new logging supervisors and logging assistants. Provide a copy of a typical examination and the correct answers to the examination questions. Indicate the passing grade. 			<p>see July 24, 2017 X Submittal RPP - 5.0 + 6.0 X see Sept 19, 2017 Submittal Addendum 2</p>

5.0 WELL LOGGING SUPERVISOR

The UR-Energy RSO will ensure use of PFN Logging Equipment only by qualified Well Logging Supervisors and appropriately trained Well Logging Assistants. Qualifications for these responsibilities are described in the specific license application and are available upon request. Per guidance outlined in NUREG-1556 Vol. 14, the Logging Supervisor will attend applicable refresher training on an annual basis (course certificates or documentation will be maintained on file by the RSO). Refresher training may be conducted by the RSO per guidance indicated in NUREG-1556 Vol. 14. The training requirements are described in more detail in Section 6.0 and in Attachment A. The training requirements for an experienced well-logging supervisor who have worked for another licensee will be the same as for new logging assistants.

In the event the RSO cannot be reached, the well logging supervisor will assume authority as acting RSO and will make respective decisions regarding special radiation safety concerns, problems, circumstances or emergencies as needed in order to insure the health and safety of both workers and the public.

When the Well Logging Supervisor is unavailable the UR-Energy RSO for the PFN Well Logging Tool License will address any issues regarding the Well Logging tool. These responsible individuals may be contacted through the LC ISR, LLC main office:

(307) 265-2373

6.0 WELL LOGGING ASSISTANTS

Well logging assistants will perform logging operations at the direction of the well logging supervisor. This may include handling of the PFN logging tool and operation of the neutron generator. Well logging assistants will follow ongoing guidance of the well logging supervisor and the RSO, and will also take personal responsibility for implementation of all radiation protection program requirements.

Qualification for well logging assistants will include applicable well logging and radiation safety training by qualified instructors, and having read and gained a thorough understanding of the radiation protection program. Annual refresher training will include an overview of safety issues related to well logging, any new regulations, procedures, or observations from previous operational inspections (NUREG 1556 Vol. 14). Refresher training will be performed before the start of drilling season each year.

The training for well logging assistants and supervisors will include instruction in the use of the PFN tool as well as all safety precautions to be taken to keep radiation doses as low as is reasonably achievable (ALARA). In addition, the training will include classroom instruction in the elements of the appropriate radiation protection regulations (10 CFR 19 and 10 CFR 20 or equivalent agreement state regulations). Copies of these regulations will be made available to individuals using or assisting with the use of the PFN tool. All individuals, including experienced logging supervisors who have worked for another licensee, will be required to attend user training and to pass a comprehensive test covering basic radiation safety, specific radiation safety issues associated with the use of the PFN tool, and emergency response. The passing grade on the test will be 80%.

ADDENDUM 2
(Example Written Test)

PFN Logging Tool User Test

Part 1: Basic Radiation Protection

1. True or false [30 points]:

- T Radiation is a natural part of our environment.
- T Ionizing radiation is made of particles and kinetic energy
- T Tritium emits ionizing radiation
- F Neutrons are not very penetrating and are not harmful from outside the body.
- T The principal concern from low level radiation dose is risk of cancer.
- T In order for a device to be licensed by the NRC or by a state, its use must be justified by showing that there is a benefit to be realized.
- T Radiation dose is expressed in terms of rem or mrem (Sv or mSv).
- T The maximum allowable dose to a radiation worker is 5,000 mrem per year.
- T The dose from radiation is a function of exposure rate and time.
- F The purpose of the dosimeter (TLD badge) is to shield the body from radiation.
- F Lost TLD badges should be reported to the Radiation Safety Officer of the Logging Supervisor within a week.
- T Urine bioassay may be required due to the presence of uranium in the work environment; not because of the tritium in the PFN tool.
- F The TLD badge should be put in your pocket while on site.
- T Background radiation dose consists of cosmic, terrestrial, and internal dose.
- T The PFN tool must be licensed by the NRC (or by an agreement state).

2. The four types of ionizing radiation that you may encounter using the PFN tool at a uranium site include [2 Points]:

- a. Alpha, beta, and gamma
- b. Alpha, beta, gamma, and neutrons {✓}
- c. Neutrons only
- d. Neutrons, neutrinos and croutons
- e. Prions, protons, and neutrons
- f. None of the above

3. The term ALARA means [2 Points]:

- a. Keep radiation doses As Low As is Reasonably Achievable for workers and members of the public. {✓}
- b. Radiation doses, to members of the public only, should be kept As Low As Reasonably Achievable
- c. Radiation doses should be kept As Low As Readily Accessible.
- d. A type of western flower

4. Three ways that radionuclides can get into the body [9 Points]:

Inhalation (Breathing)

Ingestion (Eating)

Absorption (Through Skin)

5. Two ways of preventing intake of radionuclides [6 Points]:

Proper Housekeeping, PPE, and Radiation Engineering Controls

6. External radiation doses may be reduced by [9 Points]:

Reduced exposure time, Increase distance from source, and add or increase shielding

7. Briefly define the following [12 Points]:

a. Roentgen – Unit of exposure to gamma radiation or x-rays

b. curie – A unit measurement of radiation activity of environmental samples (air, soil and water), or 3.7×10^{10} d/s

c. half-life – The time it takes for half of the atoms of a radionuclide to decay

d. contamination – Radioactivity where it is not expected or wanted

8. List two rights of radiation workers [4 Points]:

Annual notification of radiation dose

Consult privately with NRC, or State inspectors representatives sit in on NRC/State inspections

9. List two responsibilities of radiation workers [6 Points]:

Report any unsafe condition to supervisor, wear PPE properly when required, comply with all safety rules, wear dosimetry properly, and report loss TLD badge immediately

Part 2: PFN Tool Use

1. True or False [18 Points]

- T The tritium in the PFN tool is a weak beta particle emitter.
- T The PFN tool works by interaction between the H-2 atoms and the H-3 target
- F All radiation exposure is terminated when the tool is shut down.
- T Atoms in the housing materials may be activated to radioactive atoms by the neutrons
- T The neutron dose rate from the PFN tool decreases with distance from the device.
- F The dosimeter badge can be removed and stored in the truck as soon as the device is turned off.
- T The exposure rate must be measured any time the tool has been used until the measurement returns to background
- T The PFN tool must be stored in its shielded compartment in the logging truck when not in use.
- F The logging truck may be left unlocked as long as the PFN tool is in its shield.

2. Handling time for the tool should be minimized primarily because [2 Points]:
- The total dose is proportional to the time of exposure (\sqrt{t})
 - The tool will wear out if it is handled.
 - The cost of the analysis is proportional to the time the tool is used
 - The tool may be needed at another location
 - The logging supervisor needs a cup of coffee.

Bonus Questions - [9 Points]

3. List three ways the ALARA principle may be implemented when the tool is in use:
- Handle the PFN tool, when necessary, at a point farthest from the generator as is practicable;
 - Use a survey meter to be sure gamma exposure rate is below 0.1 mR/hr at your point of exposure
 - Follow all operating procedures and safety rules



Total of 100 points with 9 bonus points – 80% needed to pass

ALEX BUEHRLE, C.H.P.

PROFESSIONAL EXPERIENCE:

Radiation Safety Officer, USGS National Type A Broad Scope License July 2014 to April 2017

- Implement and oversee Type A Broad Scope License for national program
- Implement and oversee Radiation Safety Program for all radioactive material and devices
- Executive Secretary of Radiation Safety Committee
- Provide professional guidance, regulatory instruction, and support for license requirements
- Maintain documents, digital and hard copies, to show compliance with 10 CFR & license
- Oversee dosimetry program
- Oversee training program for 49 CFR, IATA, and Radiation Safety
- Update and maintain inventory for license requirements
- Oversee, direct, guide, & complete decontamination and decommissioning projects
- Develop and implement policy for NORM and generally licensed material
- Setup and maintain an operational radio-analytical lab
- Maintain an annual operational budget

Reactor Health Physicist, USGS TRIGA 1 MW Research Reactor July 2009 to March 2015

- Implement and oversee Radiation Protection Program
- Ensure all doses are ALARA and workers follow time, distance, shielding principles
- Perform monthly radiation and contamination surveys
- Oversee irradiation activation analyses
- Setup, calibrate, and troubleshoot HPGe and NaI gamma spectrometry systems
- Perform and track a wide variety of radiation instrument calibrations
- Provide radiation safety training to students and personnel
- Setup and ship domestic and international class 7 shipments
- Ensure provisions of 10 CFR 19 & 20 are properly followed
- Assist with Emergency Response Training for site personnel and local 1st responders
- Provide radiation protection guidance to staff, experiments, and visitors
- Handle reactor produced isotopes with activities ranging from pico-Curie to multi-Curie

Senior Reactor Operator, USGS TRIGA 1 MW Research Reactor Sept 2009 to March 2015

- Maintain NRC Senior Reactor Operator license requirements
- Operate TRIGA reactor for samples and tests
- Train and mentor Reactor Operators
- Design and perform irradiation experiments
- Oversee and perform reactor general maintenance

Reactor Operator, USGS TRIGA 1 MW Research Reactor July 2008 to September 2009

- Maintain NRC Reactor Operator license requirements and train for SRO license
- Operate TRIGA reactor for samples
- Assist and participate in irradiations, activation analysis, and maintenance
- Assist with Health Physics duties

EDUCATION:

Colorado School of Mines - Golden, CO

B.S. May 2008

Majored in Engineering Physics with a minor in Mechanical Engineering

SKILLS & ADDITIONAL INFORMATION:

- Training: HAZWOPER; MARSSIM; 49 CFR & IATA; CPR & First Aid;
- Experienced with Micro Shield, Genie 2000, Hot Spot, Comply Code, CAP88, RESRAD
- Proficient with Solid Works, Mathematica, Microsoft Office, and Windows
- Experienced with usage of oscilloscopes, forklifts, machine shops, & solder irons

Well Logging Experience for Alex Buehrle

Oversaw two Radioisotope Utilization Permits under National Type A Broad Scope License covering well logging activities in Texas, Idaho, and temporary job sites in the United States. Conducted semi-annual reviews, annual safety meetings, annual self-audit reviews, and RSO lead triennial audits. Sources included curie level AmBe and Cs-137 sealed sources. Responsible for radiation safety, transportation requirements, and ensuring safe operations for each permit.

At the USGS TRIGA 1 MW Research Reactor: generated, handled, packaged, and shipped radioisotope tracers ranging from mCi to multi-Curie activities in various chemical and physical forms. Isotopes included but were not limited to: Ar-41, Br-82, Na-24, Ta-182, W-187, and La-140. Isotopes were used for tracer applications in various field settings by client. Directly responsible for activation calculations, radiation safety, transportation requirements, and ensuring safe operations.

Describe the field (practical) examination that will be given to prospective logging supervisors and logging assistants.

The practical field exam will be an oral exam conducted with the tool, instruments, and truck. The exam will be documented and will have a passing grade of 80%. Questions will be generated by the RSO and answers will be recorded. Exam will cover the following topics:

Operation of the tool, direct and indirect safety hazards, procedures, emergency procedures, transportation requirements, ALARA, situational questions, and emergency contacts.

1.0 HEALTH AND SAFETY OVERVIEW

A requirement of the specific NRC license to acquire and operate a neutron generator for mineral well logging purposes involves implementation of a comprehensive radiation protection program. There are two major health and safety considerations surrounding use of a neutron generator for this application:

1. Protection of operator(s)
2. Protection of general public

To address these issues, this radiation safety program has been developed in accordance with NRC guidance (NUREG-1556) concerning portable gauge licenses, with specific attention given to application of a neutron generator in well logging operations (NUREG 1556 Vol. 14). Protection of well logging tool operator(s) will be achieved through adherence to the provisions of this radiation protection program including:

- Designation of a qualified radiation safety officer (RSO) who will be responsible for proper implementation of all aspects of the overall radiation protection program.
- Designation of qualified well logging supervisor to oversee field operations. The well logging supervisor will also be qualified to function as the "on-site RSO" and will ensure adherence to radiation safety requirements. He/she will implement related directives issued by the RSO.
- Appropriate level of training and/or experience for well logging assistants with respect to proper operation of the neutron generator and well logging system, as well as applicable radiation safety concepts and the requirements detailed in this radiation protection program.
- Annual refresher training in applicable radiation safety topics for the Logging Supervisor, and well logging operators by qualified instructors, including interactive discussions regarding implementation the radiation protection program and its effectiveness in safely storing, securing, transporting and using the neutron generator and associated equipment.
- Compliance with all State and Federal regulations concerning the acquisition, storage, use, transport, and disposal of controlled radioactive materials as specified in the specific license.
- Adherence to any instructions or recommendations by the logging tool manufacturer for proper care and maintenance of the neutron generator and associated logging tool equipment.
- Compliance with the radiation safety program, including the requirement that all personnel wear approved personal dosimeter badges whenever handling or operating the neutron generator and associated well logging equipment.
- Continual development and application of company policy to keep potential doses to all personnel as low as reasonably achievable (ALARA).

Protection of the general public will be achieved through the provisions mentioned above, combined with:

- Restricting access by unauthorized individuals to the neutron generator and any associated well logging system components that could pose radiological health risks.

- **Procedures for properly addressing emergencies or incidents that could have the potential to result in radiation doses to operators or the general public.**
- **A decommissioning plan for termination of use and licensing of the neutron generator in accordance with NRC guidance and regulations.**

6.0 WELL LOGGING ASSISTANTS

Well logging assistants will perform logging operations at the direction of the well logging supervisor. This may include handling of the PFN logging tool and operation of the neutron generator. Well logging assistants will follow ongoing guidance of the well logging supervisor and the RSO, and will also take personal responsibility for implementation of all radiation protection program requirements.

Qualification for well logging assistants will include applicable well logging and radiation safety training by qualified instructors, and having read and gained a thorough understanding of the radiation protection program. Annual refresher training will include an overview of safety issues related to well logging, any new regulations, procedures, or observations from previous operational inspections (NUREG 1556 Vol. 14). Refresher training will be performed before the start of drilling season each year.

The training for well logging assistants and supervisors will include instruction in the use of the PFN tool as well as all safety precautions to be taken to keep radiation doses as low as is reasonably achievable (ALARA). In addition, the training will include classroom instruction in the elements of the appropriate radiation protection regulations (10 CFR 19 and 10 CFR 20 or equivalent agreement state regulations). Copies of these regulations will be made available to individuals using or assisting with the use of the PFN tool. All individuals, including experienced logging supervisors who have worked for another licensee, will be required to attend user training and to pass a comprehensive test covering basic radiation safety, specific radiation safety issues associated with the use of the PFN tool, and emergency response. The passing grade on the test will be 80%.

ADDENDUM 1
(Job Performance Inspection)

Initial and Annual Internal Job Performance Inspection Checklist for Logging Supervisor and Well Logging Assistants

Location of Field Performance Inspection: _____

Individual Being Observed: _____

Inspector: _____ Date: _____

Yes	No	Questions
		Dosimeter badge being properly worn and stored.
		Individuals working within the restricted area are wearing dosimeter badges.
		Restricted area properly established and controlled to prevent unauthorized entry
		Radiologic instruments are calibrated with evidence of previous calibration.
		Latest survey records as required by 10 CFR 39.67(b)(c) and (e) are available -Measurement of positions occupied in transport vehicle -Measurement of vehicle exterior -Contamination check of well logging tool prior to transport
		Utilization Log properly completed
		Defective well logging equipment being used?
		Copy of operating and emergency procedures available at the site?
		Logging tool stored in logging truck with double locks or in approved building with security in place?
		Tool labeled with radioactive symbol and the words "Caution or Danger Radioactive Material"

Remarks:

4. Write a memorandum declaring any notable observations from the visual inspection and any actions taken. A copy will be stored in EHSMS filing.

Survey Meter Calibration

Have meter recalibrated annually for any survey meters used in conjunction with the PFN tool.

13.3 Annual Inspections

Operational Inspection

NUREG 1556 section 8.8

The operational inspection might not be performed at the same time as the annual PFN RPP audit because of PFN tool may not be used at the time. The operational inspection is a good opportunity to question the users about the efficacy of the program. Does the user think anything needs to be changed? Are there safety issues not addressed by the RPP?

Dose Reporting

10 CFR 20.2206 – Annual dose reporting

10 CFR 39.65 – Well logging Personnel Dosimetry

1. The RSO will evaluate dose reports against exposure limits and the ALARA program. The values from the TLD dose report is compiled in (for more information review the SOP, LC_HP-016 Personnel TLD Dosimetry):

..\\HP Records\\Dosimetry\\Dosimetry.xls

2. TEDEs will be calculated annually from external doses, unless the RSO has reason to suspect that there have been releases of tritium or the external dose might approach an occupational limit. If tritium releases is expected TEDE will be calculated immediately, and the RSO will take appropriate action in accordance with reporting requirements (10 CFR 20.2203) and ALARA.
3. An annual report of assigned occupational doses received in the previous year must be shown to occupationally exposed individuals. A cover letter for the report will be initiated by all employees being monitored, to verify all individuals have seen their annual dose record.

Operator Safety Review

10 CFT 39.61 (d) – Refresher training

NUREG 1556 Appendix L. – Well logging training requirements

1. Ideally, refresher training will immediately precede seasonal use of the PFN tool. The annual refresher training will cover the following topics:
 - a. review of the radiation safety program
 - b. new procedures/regulations/equipment
 - c. observations from the operational inspection
 - d. questions the operator may have

2. Create a memorandum for each PFN user, documenting the completion of the safety review. Records of annual safety reviews must list topics discussed and be retained for 3 years. The memorandum should be on file in the EHS office, and a copy should be in the field notebook "PFN Tool Manual"(according to 10 CFR 39.73 (i)).

PFN RPP Audit

The annual PFN RPP audit is required by the PFN RPP manual, 10 CFR 20.1101, and 10 CFR 20.2102. The regulations say that the RSO will perform an audit of the RPP and that records of the audit will be stored. The audit is an opportunity to complete an ALARA review of the RPP. Complete the following steps. Then perform the Well Logging Audit below.

1. Examine the office PFN RPP notebook "Radiation Protection Program: Prompt Fission Neutron (PFN) Well Logging Tool (Tritium Source and Downhole Neutron Generator)".
2. Examine the field notebook "PFN Tool Manual". Remove the current field logs and store them in their appropriate folders in the EHSMS filing cabinets. Make sure that there are sufficient blank logs. The following documents must be in the field notebook:
 - a. Transportation logs and Usage Logs (§ 39.73 (h and j))
 - b. Operating and emergency Procedures (RPP manual) (§ 39.73 (c))
 - c. Materials license (§ 39.73 (b))
 - d. Current record of training for any PFN tool user (§ 39.73 (l))
 - e. Physical Inventory Inspection (§ 39.73 (f and h))
 - f. Current calibration record of radiation survey meter (§ 39.73 (d))
 - g. A copy of 10 CFR parts 19, 20, and 39 (§ 39.73 (a))
3. Ensure that backup copies of information in the field and office binders are also in the EHSMS filing cabinets. These cabinets are where the field logs are stored.
4. Ensure that the Checkout Logs, Usage Logs, and Transportation Survey Logs are stored electronically in addition to being stored in the EHS office.
PFN Records
5. Complete the PFN RPP Audit Form. Store in the EHS filing cabinets.