INSPECTION PROCEDURE 87124

FIXED AND PORTABLE GAUGE PROGRAMS

PROGRAM APPLICABILITY: 2800

87124-01 INSPECTION OBJECTIVES

01.01 To determine if licensed activities are being conducted in a manner that will protect the health and safety of workers and the general public.

01.02 To determine if licensed programs are being conducted in accordance with U.S. Nuclear Regulatory Commission (NRC) requirements.

87124-02 INSPECTION REQUIREMENTS

The review of the licensed activities will be commensurate with the scope of the licensee's program. The inspector's evaluation of a licensee's program will be based on direct observation of work activities, interviews with workers, demonstrations by workers performing tasks regulated by NRC, and independent measurements of radiation conditions at the facility, rather than exclusive reliance on a review of records.

The structure and the emphasis of the inspection will be on the following Focus Elements (FE) that describe the outcomes of an effective fixed or portable gauge radiation safety program:

02.01 FE-1. The licensee should control access to and prevent loss of licensed material so as to limit radiation exposure to workers and members of the public to values below 10 CFR Part 20 limits.

02.02 FE-2. The licensee should maintain shielding of licensed materials in a manner consistent with operating procedures and design and performance criteria for devices and equipment.

02.03 FE-3 . The licensee should implement comprehensive safety measures to limit other hazards from compromising the safe use and storage of licensed material.

02.04 FE-4. The licensee should implement a radiation dosimetry program to accurately measure and record radiation doses received by workers or members of the public as a result of licensed operations.

02.05 FE-5. The licensee should provide radiation instrumentation in sufficient number, condition, and location to accurately monitor radiation levels in areas where licensed material is used and stored.

02.06 FE-6. The licensee should ensure that workers are:

a. knowledgeable of radiation uses and safety practices;
b. skilled in radiation safety practices under normal and accident conditions; and,
c. empowered to implement the radiation safety program.

02.07 FE-7. The licensee's management system should be appropriate for the scope of use and should ensure:

a. awareness of the radiation protection program;
b. that audits for ALARA practices are performed; and,
c. that assessments of past performance, present conditions and future needs are performed and that appropriate action is taken when needed.

In reviewing the licensee's performance, the inspector should cover the period from the last to current inspections. However, older issues preceding the last inspection should be reviewed, if warranted by circumstances, such as incidents, noncompliance, or high radiation exposures.

87124-03 INSPECTION GUIDANCE

General Guidance

The following inspection guidance is designed to assist the inspector in evaluating the performance of the licensee's radiation safety program. The guidance is organized by the individual focus elements described above. The timing and sequence of inspection activities are left to the inspector's discretion based on the circumstances and conditions at the time of the actual inspection. Furthermore, inspectors should not feel constrained by the guidance in this procedure. If an inspector obtains information that indicates that a problem may exist in an area within the NRC's jurisdiction that is not specifically addressed in this procedure, the inspector should redirect, or otherwise expend, inspection effort to address that problem.

An examination of the licensee's records should not be considered the primary part of the inspection program. Rather, observations of activities in progress, equipment, facilities and

use areas, etc., will be a better indicator of the licensee's overall radiation safety program than a review of records, alone.

In the records reviewed, look for trends such as increasing doses or effluent releases. Records such as surveys, waste disposal, effluent releases, receipt and transfer of licensed materials, training, utilization logs, and air sampling may be examined randomly until the inspector is satisfied that the records are being maintained and are complete. Other records that are more closely related to health and safety (such as personnel dose-monitoring records and incident reports) should be examined in detail.

Common elements to all inspections include entrance and exit meetings with appropriate licensee management, including the radiation safety officer (RSO), observations of facilities and work in progress, independent confirmatory surveys, and the evaluation of program scope and any special license conditions. Specific guidance regarding these common elements can be found in IMC 2800.

Each of the following elements should be reviewed as appropriate, during each inspection of a fixed and portable gauge licensee.

Specific Guidance

03.01 FE-1:The licensee should control access to and prevent loss of licensed material so as to limit radiation exposure to workers and members of the public to values below 10 CFR Part 20 limits

Facilities

a. Through direct observation, verify that all entrances to licensee facilities are normally closed, locked or otherwise secured to prevent unauthorized entry. This should include main facility gates, main building entrances, doors to waste storage facilities, etc.

    1. If any entrance or area is unsecured, determine, through interviews of licensee staff, the reason for the area or entrance being unsecured. Determine if the licensee failed to follow established procedures in securing the area or if additional training of staff is needed. Determine if the licensee's facility is configured to separate working areas from unrestricted areas.

    2. If entrances or other areas are unsecured, observe other areas where radioactive materials are used and stored and verify that they are locked and have limited and controlled access. Radioactive material use areas must be under constant surveillance or physically secured.

b. Through observations, verify that use and storage areas are locked and have limited and controlled access. At a minimum, radioactive material use areas should be under constant surveillance during normal business hours when licensee personnel are present or physically secured against unauthorized access. Storage areas should be physically secured when unattended.

c. Evaluate licensee practices regarding access controls including control of keys and access codes to ensure only currently authorized individuals have access to licensed materials.

d. Licensed material in use must be controlled and under constant surveillance. Portable gauges must be under constant surveillance when at a temporary job site. For fixed gauges in use, constant surveillance is not required, provided that the licensee has adequate facility security and effective procedures for ensuring that gauges are not removed by unauthorized personnel. Determine the adequacy of the licensee's procedures for securing licensed materials at temporary job sites. Evaluate licensee's procedures for securing gauges that are not in use at temporary job sites. Evaluate how the licensee secures gauges that are in transport, including securing gauges in a licensee vehicle when that vehicle is parked in a restaurant, hotel, or similar facility. Verify that either the gauge's transport case or operating handle is locked when the device is packaged for transport.

Receipt and Transfer of Licensed Materials

Through observations and interviews of licensee personnel, verify that the licensee: 1) properly secures package receipt areas, such as loading docks or other shipping and receiving areas; 2) inspects gauge shipping containers for damage; 3) performs appropriate receipt surveys; 4) opens packages in a safe manner; 5) assures that packages are properly prepared for transport; and 6) controls packages in a secure manner prior to pickup by courier personnel or transport by licensee personnel. If possible, observe the receipt of packages. Otherwise, request that personnel who normally receive packages for the licensee demonstrate package receipt processes and surveys.

a. If packages are left unattended, then assess the licensee's receipt procedures, including instructions provided to couriers, to assure that packages are being delivered to the appropriate location(s).

b. If surveys of packages (whether during receipt or preparation for shipment) are not adequate to verify that radiation and contamination levels are within regulatory limits, then interview licensee staff and the RSO further to assess worker knowledge. Deficiencies regarding instrumentation should be reviewed in more depth in Focus Element 5.

Through interviews of licensee personnel and review of selected transfer documentation, verify that the licensee has an adequate method of determining that recipients of radioactive shipments are licensed to receive such materials.

Inventory Control

Through observation, physically examine the inventory of gauges on hand and review selected records of receipt and transfer to verify that quantities and forms are as authorized on the license. Compare the possession of gauges with inventory records. Verify that the licensee's use of byproduct material is limited to that which is authorized in the license.

Through interviews of the RSO and selected licensee personnel, determine whether the licensee has experienced any events since the last inspection, involving lost, missing, or stolen licensed materials.

a. Review and evaluate any such incident or unusual occurrence that took place since the last inspection. If such incidents were required to be reported, verify, through interview of the RSO and review of event reports, that a complete and timely report was made to the NRC.

b. For incidents or unusual occurrences that were not required to be reported, determine whether the licensee performed sufficient investigation to identify the cause of the incident, and took appropriate corrections to prevent recurrence of the situation leading to the incident or unusual occurrence.

03.02 FE-2: The licensee should maintain shielding of licensed materials in a manner consistent with operating procedures and design and performance criteria for devices and equipment

a. Equipment. The SSD sheet specifies the type of safety features installed on the device and specifies the frequency at which these features should be inspected for proper operation. Fixed gauges operated in high temperature environments may require supplemental cooling systems that have inspection and maintenance requirements. Ensure devices are used in accordance with any operating limits (such as temperature and vibration limits) described on the applicable SSD sheet. Verify that engineered safety features (such as shutters, locking mechanisms, or interlocks) are appropriate, operable, calibrated, adequately maintained, and conform to the description in the applicable SSD sheet. Ensure that the facility provides protection of shield integrity, including fire protection. Licensees should have copies of or access to these SSD Certificates, in addition to the manufacturers' manuals for operation and maintenance.

b. Process or Other Engineering Controls Verify that, where applicable, that the licensee uses processes or other engineering controls to maintain doses as low as

is reasonably achievable (ALARA). For example, fixed gauge licensees may install protective cages around the area where a gauge is mounted to prevent inadvertent access to the radiation beam.

c. Routine and Non-Routine Maintenance. Confirm that any maintenance of gauges is performed in accordance with the applicable manufacturer's maintenance procedures. Maintenance procedures must include ALARA provisions, and ensure that the gauge functions as designed and the source integrity is not compromised. For portable gauges, routine maintenance may include the cleaning and lubrication of the source rod and shutter mechanism (e.g., to remove caked dirt, mud, asphalt, or residues from the source rod; lubricate the shutter mechanism). For fixed gauges, routine maintenance is normally limited to cleaning of the gauge housings to ensure that required labels remain legible.

More extensive maintenance or servicing (beyond routine cleaning and lubrication) that involves detaching the source or source rod from portable gauges must be performed by the gauge manufacturer or a person specifically authorized by the NRC or an Agreement State. Persons performing installation, initial radiation surveys, relocation, removal from service, dismantling, alignment, replacement, disposal of the sealed source, and non-routine maintenance or repair of components related to the radiological safety of fixed gauges (i.e., the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, shielding) must be authorized by the NRC or an Agreement State. The license will contain a condition if the licensee is authorized to perform these activities.

03.03 FE-3: The licensee should implement comprehensive safety measures to limit other hazards from compromising the safe use and storage of licensed material

The inspector should be attentive to potential industrial safety hazards, for referral to the U.S. Department of Labor's Occupational Safety and Health Administration (see Manual Chapter 1007). The focus should be on potential non-radiological hazards personally observed or brought to the inspector's attention by licensee staff.

a. Operational Limits. Verify that gauges are operated in accordance with any operating limits (i.e., heat, vibration, corrosive materials, or other industrial or environmental hazards) described on the applicable SSD sheet. Determine whether if fixed gauge are installed in accordance with the limiting conditions described in the sealed source and device catalog certificate and by the device manufacturer (i.e.: temperature, vibration, etc.). Verify that gauges in storage are protected from fire and the elements and that adequate controls are in effect to minimize the risk from other hazardous materials.

Verify that radiological labeling is clearly visible and legible.

b. Temporary Job Site Hazards. During inspections of licensed activities at temporary job sites, verify that licensee personnel ensure that devices are protected from heavy construction equipment, welding equipment, high voltage lines, and other industrial hazards.

c. Fire Protection. Materials licensees are not required by NRC regulations to implement a fire protection program. However, in many cases, the risk posed to radiological safety by fires is comparable to or exceeds the risk from other events involving licensed activities. Determine if licensees have a plan in place for preventing fires and combating fires that might occur. Any perceived problems/deficiencies (i.e., improper storage of combustible or flammable material, fire extinguishers out of service, lack of fire alarm or detection system, lack of fire suppression system) noted by the inspector should be brought to the licensee's attention and discussed with regional management. Proper fire protection systems can be evidenced by the licensee's involvement with the local fire department.

d. Transportation. Verify that the licensee's procedures and documentation are sufficient to ensure that licensed material is transported in accordance with 10 CFR Part 71 and U.S. Department of Transportation (DOT) regulations for transportation of radioactive materials.

Examine: packages and the associated certification documentation; vehicles (including cargo blocking and bracing, and gauge security); and, shipping papers. Review any incidents required to be reported to the DOT.

NOTE: For further inspection guidance refer to IP 86740, "Inspection of Transportation Activities." Inspectors should also refer to "Hazard Communications for Class 7 (Radioactive) Materials." These field reference charts, related to hazard communications for transportation of radioactive materials, are useful field references for determining compliance with the transportation rules on labeling, placarding, shipping papers, and package markings. They also contain references to the DOT regulatory requirements.

03.04 FE-4: The licensee should implement a radiation dosimetry program to accurately measure and record radiation doses received by workers or members of the public as a result of licensed operations

A radiation dosimetry program includes all of the licensee's activities that measure the radiation dose to workers and members of the public as the result of licensed activities. These activities would include for example, the measurement of quantities of licensed materials present, radiation and contamination levels, and the concentration of licensed materials in effluent streams.

Verify that the licensee has performed adequate surveys to show compliance with public dose limits and that conditions in controlled areas and unrestricted areas meet the requirements specified for these areas.

a. For most fixed and portable gauge licensees, occupationally exposed workers are not likely to receive annual doses in excess of ten percent of the applicable limit in 10 CFR Part 20. Therefore, these licensees are not normally required to implement a radiation dosimetry program. In these instances, evaluate the licensee's demonstration that personnel are not likely to receive in excess of ten percent of the Part 20 occupational dose limit. In all cases, if a licensee does not provide personnel monitoring devices, it must have a documented prospective evaluation of occupational exposure that demonstrates that monitoring is not required.

   Dosimetry devices must be appropriate to the type, energy, and the anticipated radiation fields, must be issued to licensee personnel, when monitoring is required. Verify that any dosimeters, that require processing to determine the radiation dose, are processed by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited processor.

b. Verify that the licensee annually advises each worker, who is required to be monitored, of the worker's dose as shown in records maintained by the licensee.

c. For most fixed and portable gauge licensees, extensive evaluations of doses received by members of the public from licensed activities may not be necessary. Verify that the use and storage of gauges will not likely result in exposures to members of the public or radiation levels in unrestricted areas that are in excess of the regulatory limits. For storage areas that located adjacent to unrestricted areas, licensees must ensure (through measurement or calculation) that doses in the unrestricted areas do not exceed 2 millirem (mrem) in any one hour or 100 mrem in a year the maximally exposed member of the public.

d. <u>Area Surveys</u>. Most fixed and portable gauge licensees are not required to perform routine surveys. Surveys of fixed gauges are required when the licensee (or its licensed contractor) installs, removes, or relocates a gauge. Generally, portable gauge licensees are only required to perform surveys if they are authorized to perform maintenance involving the removal of the source rod, or the device's shielding.

   If practical, observe how licensees conduct any required surveys to determine the adequacy of such surveys. Note the types of any instruments used, and whether they are designed and calibrated for the type of radiation being measured. (See FE-5)

e. Leak Tests. Verify that leak tests of sealed sources are performed at the required frequency. Also verify that leak test samples are analyzed in accordance with the license requirements.

1. If records of leak test results show contamination in excess of the regulatory requirements, then verify that the licensee made appropriate notifications and removed the source from service.

f. Storage and Disposal of Gauges Removed From Service. Determine if the licensee has gauges that have been removed from service. Verify that the gauges are stored and controlled in a secure and safe manner, and that radiation levels in unrestricted areas surrounding the storage area do not exceed the limits of 10 CFR 20.1301, "Dose Limits for Individual Members of the Public."

Licensee personnel should be aware of the presence of the device and the need to prevent unauthorized disposal or abandonment.

Typically, gauge licensees dispose of devices either by returning the device to the manufacturer or by transfer to another appropriately licensed person. Verify that any person that the licensee has transferred gauges to was properly licensed to receive them.

If the licensee transfers gauges to a burial site for offsite disposal, assess the licensee's procedures and records to verify that each shipment is accompanied by a shipment manifest that includes all the required information. Also assess the licensee's procedures and records to verify that each package intended for shipment to a licensed land disposal facility is labeled, as appropriate, to identify it as Class A, B, or C waste in accordance with the classification criteria of 10 CFR 61.55 [Subsection III.A.2 of Appendix G to Part 20].

For additional guidance relating to the evaluation of radiation safety programs and personnel dosimetry, refer to Inspection Procedure (IP) 83822, "Radiation Protection."

03.05 FE-5: The licensee should provide radiation instrumentation in sufficient number, condition, and location to accurately monitor radiation levels in areas where licensed material is used and stored

Gauge licensees should either possess, or have access to radiation survey equipment. Equipment and instrumentation should be appropriate to the scope of the licensed program.

a. Verify that the instrumentation has the appropriate range of use. Also verify that the survey instruments are calibrated at the appropriate frequency and checked

for operability before use. Survey and monitoring instruments must be appropriately calibrated for the types and energies of radiation to be detected.

03.06 FE-6: The licensee should ensure that workers are knowledgeable of radiation uses and safety practices; skilled in radiation safety practices under normal and accident conditions; and empowered to implement the radiation safety program

Authorized Users

Authorized users may either be named in the license application or be appointed by the licensee, depending on the type of license issued and/or the wording in the license. For those appointed by the licensee, verify that the authorized user is trained in accordance with the approved criteria and has knowledge commensurate with operational duties. Typically, successful completion of one of the following is considered as evidence of adequate training and experience for operating gauging devices:

- Gauge manufacturer's course for users; or

- Equivalent course that meets Appendix D criteria in either NUREG 1556, volume 1, Program-Specific Guidance About Portable Gauge Licenses" or NUREG 1556, volume 4, Program-Specific Guidance About Fixed Gauge Licenses"

Authorized users are required to either be physically present or to otherwise supervise the use of gauges. The level of supervision will depend on the wording in the license conditions or regulations. Some licenses have conditions such as" . . . used by or under the supervision of . . . " For some licenses that have the condition" . . . under the direct supervision of . . . ," the authorized user must be physically present at the facility for easy contact or to observe the individual(s) working. Another phrase used is " . . . may only be used by . . . " Finally, " . . . under the direct supervision and physical presence of . . . " means the authorized user must directly supervise and be present at the work station. Considering the many license condition phrases, the inspector must exercise judgment to interpret the role of the authorized users.

When the wording of the license condition is " . . . used by or under the supervision of . . . ," an authorized user named on the license is considered to be supervising the use of licensed materials when he or she directs personnel in the conduct of operations involving the licensed material. This does not imply that the authorized user must be present at all times during the use of such materials. The authorized user is responsible for assuring that personnel under his/her supervision have been properly trained and instructed and is responsible for the supervision of operations involving the use of licensed materials, whether he or she is present or absent.

General Training

Determine that appropriate training and initial instructions are being accomplished as specified in the license and/or regulations. The inspector must verify that appropriate training is provided to authorized users (including the RSO), other persons using licensed materials, and other licensee employees who may have unescorted access to licensed materials or to restricted areas.

The requirements for certain kinds of training and instruction are found in the regulations, while the procedures for their implementation are generally found in the procedures included in the license's "tie-down" condition. Discuss with the licensee how, and by whom, training is conducted, and the content of the training provided to workers (generally found in the license application).

Generally, most gauge licensee employees are not likely to receive an occupational dose of more than 1 mSv (100 mrem) in a year. The only exception would likely be a licensee that performs an extensive amount of maintenance on it own gauges. Verify that initial instructions have been given to workers, if any, who are likely to receive more than 1 mSv (100 mrem) in a year. For this kind of training, it is the licensee management's responsibility to inform the workers of precautions to take when entering a restricted area, kinds and uses of radioactive materials in that area, exposure levels, and the types of protective equipment to be used. The workers should also be informed of the pertinent provisions of NRC regulations and the license, and the requirement to notify management of conditions observed that may, if not corrected, result in a violation of NRC requirements. Also verify that authorized users and workers understand the mechanism for raising safety concerns.

Through interview of one or more users of radioactive materials (other than the RSO) determine that they possess the adequate knowledge and understanding of the licensee's operating and emergency procedures. The interviews should include discussions about actual or hypothetical emergency conditions in order to assess the worker's response to such conditions. Observe licensed activities in progress or a demonstration of activities to assess the worker's understanding of the radiation protection requirements associated with their assigned activities.

Operating and Emergency Procedures

Operating and emergency procedures will be found in license applications and may vary from step-by-step procedures to more generalized procedures for lower-inspection-priority licenses. The emergency procedures will be approved by the NRC, and reviewed and updated by the licensee. Any revision requires an amendment to the license.

Verify that licensee personnel are knowledgeable of the operational procedures by observing the performance of tasks at selected work stations and by a comparison of their performance with established procedures. Assess the licensee's emergency procedures

to determine that these procedures are as approved by or described to NRC. Through interview of workers, verify that licensee personnel understand and implement the established procedures and are aware of procedural revisions.

Licensees should be aware of relative radiological risks and not try to protect the device to the extent that they would be subjected to fire or other life-threatening situations (e.g., attempting to rescue a portable gauge from the path of approaching soil compacting equipment.)

Some licensees may have agreements with other agencies (i.e., fire, law enforcement, and medical organizations) regarding response to emergencies. Through interviews of licensee officials, determine what actions the licensee has taken to ensure that such agencies (involved in such agreements) understand their roles in emergency responses.

Posting and Labeling

Through observation, verify that proper caution signs are being used at access points to areas containing radioactive materials and radiation areas. Through observation of labeling on packages or other containers, verify that the proper information (e.g., isotope, quantity, and date of measurement) is recorded. Areas with radiation hazards should be conspicuously posted, as required by 10 CFR 20.1902.

Through observation, verify that applicable documents, notices, or forms are posted in a sufficient number of places to permit individuals engaged in licensed activities to observe them on the way to or from any particular licensed activity location to which the postings would apply.

03.07 FE-7: The licensee's management system should be appropriate for the scope of use and should ensure awareness of the radiation protection program; that audits for ALARA practices are performed; and that assessments of past performance, present conditions, and future needs are performed, and that appropriate action is taken when needed

The NRC holds the licensee responsible for the radiation protection program; therefore, it is essential that strong management controls and oversight exist to ensure that licensed activities are conducted properly. Management responsibility and liability are sometimes under emphasized or not addressed in applications and are often poorly understood by licensee employees and managers. Senior management should delegate to the RSO sufficient authority, organizational freedom, and management prerogative to communicate with and direct personnel regarding NRC regulations and license provisions and to terminate unsafe activities involving byproduct material.

Through observations, interviews and the review of selected records, determine that senior licensee management is fulfilling its responsibility of ensuring the effective operation of the radiation safety program. Specific areas of management focus should include:

- Maintaining awareness of significant events such as the loss or theft of licensed materials.
- Maintaining radiation safety, security and control of radioactive materials, and compliance with regulations.
- Committing adequate resources (including space, equipment, personnel, time, and, if needed, contractors) to the radiation protection program to ensure that members of the public and workers are adequately protected from radiation hazards and that compliance with regulations is maintained.
- Obtaining the NRC's prior written consent before transferring control of the license;
- Notifying the appropriate NRC regional administrator in writing, immediately following filing of petition for voluntary or involuntary bankruptcy (10 CFR 30.34(h)).
- Assuring the appropriate response, when applicable, to generic communications from the NRC.
- Assuring that adequate provisions have been made to fund the safe and effective decommissioning of licensee facilities. (10 CFR 30.35)
- Notifying the NRC of the decision to discontinue licensed activities or to decommission a facility in which licensed activities took place. (10 CFR 30.36)
- Notifying the NRC of defects or other radiation safety equipment malfunctions in accordance with the requirements of 10 CFR, Part 21.
- Maintaining awareness of issues and measures to ensure worker performance and safety are not being compromised due to safety significant human performance issues.

a. RSC (where required or used). Through the review of records, and interviews of the RSO and RSC members, determine that the committee is made up of a representative from each type of program area, the RSO, and a representative from management. If practical, attend and observe the conduct of an RSC meeting. Review meeting minutes (and interview selected committee members when practical) to determine the committee's effectiveness. Determine that the RSC meets at the required frequency as specified in the license application, other commitment documents, or in a specific license condition. Topics of discussion during committee meetings should include ALARA reviews, incidents, generic communications, authorized users and uses, waste issues, audits, etc.

Determine if the committee has been assertive in seeking out areas needing improvement, rather than just responding to events and information from outside sources. Determine whether the RSC has recommended any specific actions and assess the implementation of those recommendations. The inspector's review should be of sufficient depth and detail to provide an overall assessment of the committee's ability to identify, assess, and resolve issues. Also consider the effectiveness of the RSC to communicate the results of audits and trend analyses to appropriate personnel performing licensed activities.

b, RSO. Through the review of records, and interviews of the RSO and authorized users, verify that the RSO has been appointed by licensee management, identified

on the license, and is responsible for implementing the radiation safety program. Determine, through interviews, that this individual is knowledgeable about the program, and ensures that activities are being performed in accordance with approved procedures and the regulations. Determine that, when deficiencies are identified, the RSO has sufficient authority, without prior approval of the RSC or licensee management, to implement corrective actions, including termination of operations that pose a threat to health and safety.

Determine that the knowledge and training of any radiation safety staff are commensurate with their assigned duties. Verify that the radiation safety staff levels, including numbers and types of positions, are as described in the license application.

1. If the inspector identifies high staff turnover or prolonged shortfalls in staffing levels, through interviews and observation determine if these shortfalls have had a negative impact on licensee performance.

2. If so, discuss these findings with the RSO and senior licensee management to determine the source of the staffing issues and the licensee's plans to address the deficiency. The issue should also be brought to the attention of regional management.

c. Audits. Through reviews of audit records and interviews, verify that the radiation safety program content and implementation is reviewed at least annually. The results of all audits must be documented in accordance with 10 CFR 20.2102(a)(2). Examine these records with particular attention to deficiencies identified by the licensee's auditors, and note any corrective actions taken as a result of deficiencies found.

1. If no corrective actions were taken, determine why the licensee disregarded deficiencies identified during audits.

2. Determine if the lack of corrective actions caused the licensee to be in non-compliance with regulatory requirements.

87124-04 REFERENCES

A listing of IMCs and IPs, applicable to the inspection program for materials licensees, can be found in IMC 2800. These documents are to be used as guidelines for inspectors in determining the inspection requirements for operational and radiological safety aspects of various types of licensee activities.

END