



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
612 EAST LAMAR BLVD, SUITE 400  
ARLINGTON, TEXAS 76011-4125

May 14, 2009

EA-09-071

Bruce James  
Chief Executive Officer  
Memorial Hospital of Sweetwater County  
1200 College Drive  
Rock Springs, Wyoming 82901

SUBJECT: NOTICE OF VIOLATION AND NRC INSPECTION REPORT 030-13672/09-001

Dear Mr. James:

This refers to the unannounced inspection conducted on February 12, 2009, at Memorial Hospital of Sweetwater County in Rock Springs, Wyoming. The inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. The inspector discussed the preliminary inspection findings with your staff at the conclusion of the onsite portion of the inspection. The inspector conducted a final exit briefing telephonically with you on April 17, 2009. The enclosed report presents the results of this inspection.

In a telephone conversation on April 17, 2009, Ms. Vivian Campbell, Mr. Jason Razo, and Mr. Mark Haire of my staff informed you that the NRC was considering escalated enforcement for an apparent violation of NRC requirements. The apparent violation involved a failure to secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas. The circumstances surrounding this apparent violation, the significance of the issue, and the need for lasting and effective corrective action were discussed with members of your staff at the inspection exit briefing. Additionally, you have initiated corrective actions, some of which are documented in this report, to address the violation. Further, we provided you an opportunity to (1) respond to the apparent violation addressed in this inspection report within 30 days of the date of this letter or (2) request a predecisional enforcement conference. Ms. Campbell and Messrs. Haire and Razo also informed you that the NRC had sufficient information regarding the apparent violation and your corrective actions to make an enforcement decision without the need for a predecisional enforcement conference or a written response from you. You agreed that a predecisional enforcement conference or written response was not needed.

Based on the information developed during the inspection, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. As noted above, the violation involved a failure to secure licensed materials that are stored in controlled or unrestricted areas. Licensed materials used in the nuclear medicine department were stored in the nuclear medicine hot lab. While the nuclear medicine technologist was away from the area for approximately 2 minutes to check a work schedule, the hot lab door remained ajar. The technologist failed to fully secure, and then lock the hot lab door. The circumstances surrounding the apparent violation, the significance of the issue, and the need for lasting and effective corrective action was discussed with members of your staff at the inspection exit meeting.

The NRC considers this violation significant because this security requirement provides a reasonable assurance that licensed material stored in controlled or unrestricted areas will be secured from unauthorized removal or access. Therefore, this violation has been categorized in accordance with the NRC Enforcement Policy at Severity Level III. The NRC Enforcement Policy may be found on the NRC's Web site at [www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html](http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html).

In accordance with the NRC Enforcement Policy, a base civil penalty in the amount of \$3,500 is considered for a Severity Level III violation.

Because your facility has not been the subject of escalated enforcement actions within the last two inspections, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy. Based on your prompt and comprehensive corrective actions, the NRC has determined that *Corrective Action* credit is warranted. Your corrective actions included immediately securing and locking the hot lab door, promptly retraining current nuclear medicine technologists regarding the security policies and procedures of the department and adding training on security procedures to the annual refresher training provided to the technologists.

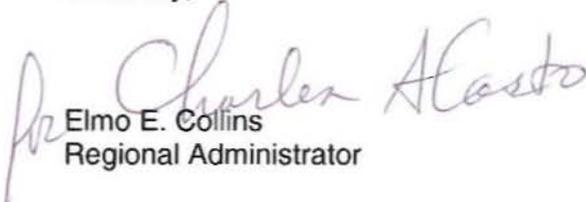
Therefore, to encourage prompt and comprehensive correction of violations, and in recognition of the absence of previous escalated enforcement action, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty. In addition, issuance of this Severity Level III violation constitutes escalated enforcement action that may subject you to increased inspection effort.

You are required to respond to the Notice and should follow the instructions specified in the enclosed Notice when preparing your response. The information provided in the excerpt from NRC Information Notice 96-28 may be helpful when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC's Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). The NRC also includes significant enforcement actions on its Web site at [www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html](http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html).

Should you have any questions regarding this letter, the enclosed report, or the enclosed Notice, please contact Ms. Vivian Campbell, Chief, Nuclear Materials Safety Branch A at (817) 860-8287.

Sincerely,

  
Elmo E. Collins  
Regional Administrator

Docket No. 030-13672  
License No. 49-17940-01

Enclosures:

1. Notice of Violation
2. NRC Inspection Report 030-13672/09-001  
(w/Attachment)
3. NRC Information Notice 96-28

cc w/Enclosures 1 and 2:  
Scott W. Ramsay  
Radiation Safety Officer  
Wyoming Office of Homeland Security  
2421 E. 7<sup>th</sup> Street  
Cheyenne, WY 82001

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[William.Jones@nrc.gov](mailto:William.Jones@nrc.gov)  
[Mark.Haire@nrc.gov](mailto:Mark.Haire@nrc.gov)  
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[Bill.Maier@nrc.gov](mailto:Bill.Maier@nrc.gov)  
[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)  
[Marisa.Herrera@nrc.gov](mailto:Marisa.Herrera@nrc.gov)

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[Angela.McIntosh@nrc.gov](mailto:Angela.McIntosh@nrc.gov)  
[Glenda.Villamar@nrc.gov](mailto:Glenda.Villamar@nrc.gov)  
 NMSB-A Inspector(s)

Hard copy:  
 RIV Materials Docket File (5th Floor)

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SUNSI Review Complete	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ADAMS	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initials	MCM
Publicly Available	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sensitive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initials	MCM
Category/Item #	Keywords	EA-09-071 NOV Memorial Hospital of Sweetwater County			
RIV:DNMS:NMSB-A	C: NMSB-A	C: NMSB-B	ACES	RC	
JMRazo	VHCampbell	JEWhitten	CMaier	KSFuller	
<b>/RA/</b>	<b>/RA/ DBS for</b>	<b>/RA/</b>	<b>/RA/</b>	<b>/RA/</b>	
03/27/09	04/09/09	04/10/09	05/ 01 /09	05/ 06 /09	
Div Dir	RA/DRA		OE	RA	
ATHowell	CCasto		NHilton	EECollins	
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05/12/09	05/ 12 /09		05/ 14 /09	05/ 19 /09	

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T=Telephone

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## NOTICE OF VIOLATION

Memorial Hospital of Sweetwater County  
Rock Springs, Wyoming

Docket No. 030-13672  
License No. 49-17940-01  
EA 09-071

During an NRC inspection conducted on February 12, 2009, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 20.1801 requires that the licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.

Contrary to the above, on February 12, 2009, the licensee failed to secure from unauthorized removal or access licensed materials that were stored in controlled or unrestricted areas. Specifically, the licensee stored radioactive materials, authorized for medical use, in a hospital hot lab, a designated controlled area, and did not secure the radioactive materials therein from unauthorized removal or access by failing to lock the hot lab door.

This is a Severity Level III violation (Supplement IV).

Pursuant to the provisions of 10 CFR 2.201, Memorial Hospital of Sweetwater County is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-001 with a copy to the Regional Administrator, Region IV, 612 East Lamar Blvd., Arlington, Texas 76011-4125 within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-09-071" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC's Web site at [www.nrc.gov/reading-rm/pdr.html](http://www.nrc.gov/reading-rm/pdr.html) or [www.nrc.gov/reading-rm/adams.html](http://www.nrc.gov/reading-rm/adams.html), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy, proprietary, or safeguards information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

In accordance with 10 CFR 19.11, you are required to post this Notice within 2 working days.

Dated this 14<sup>th</sup> day of May 2009.

U.S. Nuclear Regulatory Commission  
Region IV

Docket No.: 030-13672  
License No.: 49-17940-01  
Report No.: 030-13672/09-001  
EA No.: 09-071  
Licensee: Memorial Hospital of Sweetwater County  
Facilities: Main Office  
Location: Rock Springs, Wyoming  
Date: February 12, 2009  
Inspector: Jason Razo, Health Physicist  
Nuclear Materials Safety Branch A  
Approved By: Vivian Campbell, Chief  
Nuclear Materials Safety Branch A  
Attachment: Supplemental Inspection Information

## EXECUTIVE SUMMARY

Memorial Hospital of Sweetwater County  
NRC Inspection Report 030-13672/09-001

This was a routine, unannounced inspection of licensed activities involving the use and storage of byproduct material at Memorial Hospital of Sweetwater County. The inspection was an examination of activities conducted under NRC Materials License 49-17940-01, as they relate to radiation safety and to compliance with the Commission's rules and regulations, and the conditions of the license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel. This report describes the findings of the inspection.

### Program Overview

Memorial Hospital of Sweetwater County is authorized under its NRC License to possess and use byproduct material for medical diagnostic imaging and therapy procedures. Activities primarily are conducted in the nuclear medicine imaging room and material is stored and prepared in the hot lab area. (Section 1)

### Inspection Findings Considered for Escalated Enforcement

- The licensee failed to secure from unauthorized removal or access licensed materials that were stored in the hot lab, a controlled area. This was identified as a violation of 10 CFR 20.1801. (Section 2.2)

### Corrective Actions

- On February 12, the licensee ensured by physical inspection that the hot lab and storage areas were locked when not in use.
- On February 12, the licensee retrained all nuclear medicine technologists on security procedures for controlling the radioactive material and hot lab.
- On February 12, the licensee posted a sign on the door to the hot lab to remind staff to close and secure the door upon leaving the hot lab.

## Report Details

### **1 Program Overview (87131)**

#### **1.1 Inspection Scope**

The inspector reviewed the license and supporting documentation, interviewed licensee staff, and examined storage and use locations at Memorial Hospital of Sweetwater County (MHSC). Collectively, the documents reviewed described the licensee's implementation of its NRC license requirements and its radiation safety program.

#### **1.2 Observations and Findings**

Under its NRC byproduct materials license, MHSC operates a nuclear medicine imaging department that administers radiopharmaceuticals in unsealed form to patients. Many imaging and localization studies use the radioisotope technetium-99m. The licensee obtains the technetium-99m from a molybdenum-99 generator that it receives once per week. In addition, MHSC is authorized to receive sodium iodide containing iodine-131 in the form of capsules for therapy procedures. Certified nuclear medicine technologists (CNMTs) are responsible for the preparation, safety, and security of the radioactive material on a daily basis. The lead technologist also serves as the radiation safety officer and provides oversight and direction to the radiation safety program.

### **2 Inspection Findings (87131)**

#### **2.1 Inspection Scope**

Interviews with licensee staff and observations of the nuclear medicine department and its storage locations constituted the bulk of the inspection. Licensed activities were examined as they relate to the safety and security of the radioactive material and the licensee's policies and procedures for handling licensed materials. The inspector evaluated training, shipping/receiving, audits, instrument calibrations, dosimetry, and storage of licensed material.

#### **2.2 Observations and Findings Considered for Escalated Enforcement**

##### **2.2.1 Material Security and Control**

The NRC's regulation, 10 CFR 20.1801, requires that the licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.

The inspector entered the hospital around 7:30 a.m. MDT through the main entrance. The inspector followed signs to the Diagnostic Medical Imaging Department and proceeded down the hallways toward the nuclear medicine imaging room. Upon arrival at the imaging room, the inspector noted that the exam room door was ajar. The inspector knocked then entered the imaging room and determined that no one was

present. The inspector then walked over to the hot lab entrance that was at the rear of the exam room. The inspector observed that the hot lab door was also open and not secured.

The inspector then immediately exited the hot lab and began to exit the exam room. As the inspector was staged to exit the exam room, the CNMT on duty was entering.

The CNMT immediately challenged the inspector and asked him to identify himself. The inspector did so and proceeded to interview the CNMT. The inspector determined that he had walked down the hallway to check the work schedule for a coworker that had recently called him and that the total time that the hot lab was left unattended and unsecured by the CNMT was approximately two minutes.

Both the nuclear medicine imaging room door and the hot lab room door had locking mechanisms, but neither was engaged at the time the inspector arrived. Based on the physical arrangement of the nuclear medicine facility, if either door had been closed and secured, no security violation would have occurred.

At the time of the inspection, radioactive materials including a generator containing 0.300 curies of molybdenum-99 and sealed check sources were present in the hot lab and hot lab storage area.

On February 12, 2009, the licensee failed to secure from unauthorized removal or access licensed materials that were stored in the nuclear medicine hot lab, a designated controlled area. This instance was identified as an example of a violation of 10 CFR 20.1801. (030-13672/09-001)

### 2.3 Conclusions

The inspection identified one violation for failing to secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas in the nuclear medicine hot lab.

### 3 **Corrective Actions (87131)**

During the inspection, MHSC took many immediate corrective actions. On February 12, 2009, the licensee ensured that the hot lab and storage areas were locked when not in use. The inspector observed the nuclear medicine staff close and secure the hot lab when licensed activities involving materials in the hot lab (e.g., administering radiopharmaceuticals to a patient) were not being conducted and when access to the hot lab area was not needed to perform the inspection.

In addition, on February 12, 2009, the radiation safety officer retrained all nuclear medicine technologists on security procedures for the radioactive material and the control of the hot lab.

Also on February 12, 2009, the radiation safety officer posted a sign on the door to the hot lab to remind staff of security procedures for the hot lab and radioactive materials. Specifically, the instructions stated, in part, that staff must close and secure the hot lab door upon leaving the hot lab.

Further, the radiation safety officer will ensure that annual refresher training for radiation workers includes training on MHSC's security procedures.

#### **4 Exit Meeting Summary**

A preliminary exit briefing was conducted at the conclusion of the on site inspection with the Vice President of Operations, the Director of Medical Imaging, and the Radiation Safety Officer. A final telephonic exit briefing was conducted with representatives of MHSC on April 17, 2009, to review the inspection findings as presented in this report. Licensee representatives acknowledged the inspector's findings. No proprietary information was identified during the inspection.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Bruce James, Chief Executive Officer  
Linda Minh, Vice President of Operations  
Tracie Suller, Director of Medical Imaging  
Keith Carnahan, Radiation Safety Officer  
Joe Faigl, Nuclear Medicine Technologist

INSPECTION PROCEDURES USED

87131 Nuclear Medicine Programs, Written Directive Required

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

030-13672/09-001 VIO A violation involving the failure to secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas

Closed

030-13672/05-001 VIO A violation involving the failure to post copies of the regulations or a notice describing them and where they can be found

Discussed

None

LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
CNMT	Certified Nuclear Medicine Technologist
EA	Enforcement Action
MDT	Mountain Daylight Time
MHSC	Memorial Hospital of Sweetwater County
NRC	Nuclear Regulatory Commission
VIO	Violation

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS  
WASHINGTON, D.C. 20555

May 1, 1996

NRC INFORMATION NOTICE 96-28: SUGGESTED GUIDANCE RELATING TO DEVELOPMENT  
AND IMPLEMENTATION OF CORRECTIVE ACTION

Addressees

All material and fuel cycle licensees.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to provide addressees with guidance relating to development and implementation of corrective actions that should be considered after identification of violation(s) of NRC requirements. It is expected that recipients will review this information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not new NRC requirements; therefore, no specific action nor written response is required.

Background

On June 30, 1995, NRC revised its Enforcement Policy (NUREG-1600)<sup>1</sup> 60 FR 34381, to clarify the enforcement program's focus by, in part, emphasizing the importance of identifying problems before events occur, and of taking prompt, comprehensive corrective action when problems are identified. Consistent with the revised Enforcement Policy, NRC encourages and expects identification and prompt, comprehensive correction of violations.

In many cases, licensees who identify and promptly correct non-recurring Severity Level IV violations, without NRC involvement, will not be subject to formal enforcement action. Such violations will be characterized as "non-cited" violations as provided in Section VII.B.1 of the Enforcement Policy. Minor violations are not subject to formal enforcement action. Nevertheless, the root cause(s) of minor violations must be identified and appropriate corrective action must be taken to prevent recurrence.

If violations of more than a minor concern are identified by the NRC during an inspection, licensees will be subject to a Notice of Violation and may need to provide a written response, as required by 10 CFR 2.201, addressing the causes of the violations and corrective actions taken to prevent recurrence. In some cases, such violations are documented on Form 591 (for materials licensees)

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<sup>1</sup>Copies of NUREG-1600 can be obtained by calling the contacts listed at the end of the Information Notice.

which constitutes a notice of violation that requires corrective action but does not require a written response. If a significant violation is involved, a predecisional enforcement conference may be held to discuss those actions. The quality of a licensee's root cause analysis and plans for corrective actions may affect the NRC's decision regarding both the need to hold a predecisional enforcement conference with the licensee and the level of sanction proposed or imposed.

### Discussion

Comprehensive corrective action is required for all violations. In most cases, NRC does not propose imposition of a civil penalty where the licensee promptly identifies and comprehensively corrects violations. However, a Severity Level III violation will almost always result in a civil penalty if a licensee does not take prompt and comprehensive corrective actions to address the violation.

It is important for licensees, upon identification of a violation, to take the necessary corrective action to address the noncompliant condition and to prevent recurrence of the violation and the occurrence of similar violations. Prompt comprehensive action to improve safety is not only in the public interest, but is also in the interest of licensees and their employees. In addition, it will lessen the likelihood of receiving a civil penalty. Comprehensive corrective action cannot be developed without a full understanding of the root causes of the violation.

Therefore, to assist licensees, the NRC staff has prepared the following guidance, that may be used for developing and implementing corrective action. Corrective action should be appropriately comprehensive to not only prevent recurrence of the violation at issue, but also to prevent occurrence of similar violations. The guidance should help in focusing corrective actions broadly to the general area of concern rather than narrowly to the specific violations. The actions that need to be taken are dependent on the facts and circumstances of the particular case.

The corrective action process should involve the following three steps:

1. Conduct a complete and thorough review of the circumstances that led to the violation. Typically, such reviews include:
  - Interviews with individuals who are either directly or indirectly involved in the violation, including management personnel and those responsible for training or procedure development/guidance. Particular attention should be paid to lines of communication between supervisors and workers.

- Tours and observations of the area where the violation occurred, particularly when those reviewing the incident do not have day-to-day contact with the operation under review. During the tour, individuals should look for items that may have contributed to the violation as well as those items that may result in future violations. Reenactments (without use of radiation sources, if they were involved in the original incident) may be warranted to better understand what actually occurred.
- Review of programs, procedures, audits, and records that relate directly or indirectly to the violation. The program should be reviewed to ensure that its overall objectives and requirements are clearly stated and implemented. Procedures should be reviewed to determine whether they are complete, logical, understandable, and meet their objectives (i.e., they should ensure compliance with the current requirements). Records should be reviewed to determine whether there is sufficient documentation of necessary tasks to provide an auditable record and to determine whether similar violations have occurred previously. Particular attention should be paid to training and qualification records of individuals involved with the violation.

2. Identify the root cause of the violation.

Corrective action is not comprehensive unless it addresses the root cause(s) of the violation. It is essential, therefore, that the root cause(s) of a violation be identified so that appropriate action can be taken to prevent further noncompliance in this area, as well as other potentially affected areas. Violations typically have direct and indirect cause(s). As each cause is identified, ask what other factors could have contributed to the cause. When it is no longer possible to identify other contributing factors, the root causes probably have been identified. For example, the direct cause of a violation may be a failure to follow procedures; the indirect causes may be inadequate training, lack of attention to detail, and inadequate time to carry out an activity. These factors may have been caused by a lack of staff resources that, in turn, are indicative of lack of management support. Each of these factors must be addressed before corrective action is considered to be comprehensive.

3. Take prompt and comprehensive corrective action that will address the immediate concerns and prevent recurrence of the violation.

It is important to take immediate corrective action to address the specific findings of the violation. For example, if the violation was issued because radioactive material was found in an unrestricted area, immediate corrective action must be taken to place the material under licensee control in authorized locations. After the immediate safety concerns have been addressed, timely action must be taken to prevent future recurrence of the violation. Corrective action is sufficiently comprehensive when corrective action is broad enough to reasonably prevent recurrence of the specific violation as well as prevent similar violations.

In evaluating the root causes of a violation and developing effective corrective action, consider the following:

1. Has management been informed of the violation(s)?
2. Have the programmatic implications of the cited violation(s) and the potential presence of similar weaknesses in other program areas been considered in formulating corrective actions so that both areas are adequately addressed?
3. Have precursor events been considered and factored into the corrective actions?
4. In the event of loss of radioactive material, should security of radioactive material be enhanced?
5. Has your staff been adequately trained on the applicable requirements?
6. Should personnel be re-tested to determine whether re-training should be emphasized for a given area? Is testing adequate to ensure understanding of requirements and procedures?
7. Has your staff been notified of the violation and of the applicable corrective action?
8. Are audits sufficiently detailed and frequently performed? Should the frequency of periodic audits be increased?

9. Is there a need for retaining an independent technical consultant to audit the area of concern or revise your procedures?
10. Are the procedures consistent with current NRC requirements, should they be clarified, or should new procedures be developed?
11. Is a system in place for keeping abreast of new or modified NRC requirements?
12. Does your staff appreciate the need to consider safety in approaching daily assignments?
13. Are resources adequate to perform, and maintain control over, the licensed activities? Has the radiation safety officer been provided sufficient time and resources to perform his or her oversight duties?
14. Have work hours affected the employees' ability to safely perform the job?
15. Should organizational changes be made (e.g., changing the reporting relationship of the radiation safety officer to provide increased independence)?
16. Are management and the radiation safety officer adequately involved in oversight and implementation of the licensed activities? Do supervisors adequately observe new employees and difficult, unique, or new operations?
17. Has management established a work environment that encourages employees to raise safety and compliance concerns?
18. Has management placed a premium on production over compliance and safety? Does management demonstrate a commitment to compliance and safety?
19. Has management communicated its expectations for safety and compliance?
20. Is there a published discipline policy for safety violations, and are employees aware of it? Is it being followed?

This information notice requires no specific action nor written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below.

Elizabeth Q. Ten Eyck, Director  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Donald A. Cool, Director  
Division of Industrial  
and Medical Safety  
Office of Nuclear Material Safety  
and Safeguards

Technical contacts: Nader L. Mamish, OE  
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