



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

September 2, 2005

EAs- 03-126  
03-190

NMED No. 011072

Mr. Michael Barton, Commissioner  
State of Alaska Department of  
Transportation & Public Facilities  
3132 Channel Drive  
Juneau, Alaska 99801

SUBJECT: NRC INSPECTION REPORT 030-07710/05-001 AND NOTICE OF VIOLATION

Dear Mr. Barton:

This refers to the inspection conducted on May 11-18, 2005, at the State of Alaska Department of Transportation & Public Facilities (ADOT&PF) in Anchorage and Fairbanks, Alaska. The purposes of this inspection were to (1) review your compliance with the terms and conditions of the Confirmatory Order Modifying License (Order), (2) assess your organization's safety conscious work environment (SCWE), and (3) review your corrective actions related to previously issued findings.

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 and with the conditions of the license. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, independent radiation measurements, observations of licensed activities, and observation of training courses. The preliminary inspection findings were discussed with Messrs. John MacKinnon, Gary Hogins, and other members of your staff on May 17, 2005. A final telephonic briefing was conducted with Messrs. Gary Hogins, Michael San Angelo, Greg Christensen, and Dan Monteleone of your staff on August 4, 2005.

Based on the results of this inspection, the NRC has determined that two violations of NRC requirements occurred. The violations were evaluated in accordance with the NRC Enforcement Policy and involved failures to: (1) follow a condition of the Order, and (2) maintain records to demonstrate compliance with the dose limit for individual members of the public. The current Enforcement Policy is included on the NRC's Web site at [www.nrc.gov](http://www.nrc.gov); select **What We Do, Enforcement**, then **Enforcement Policy**. The violations are cited in the enclosed Notice of Violation (Notice) (Enclosure 1) and the circumstances surrounding them are described in detail in the subject inspection report (Enclosure 2). The violations are being cited in the Notice because they were identified by the NRC during the inspection.

You are required to respond to the enclosed Notice and should follow the instructions specified in the enclosed Notice when preparing your response. For your consideration and convenience, an excerpt from NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," is enclosed (Enclosure 3). The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

The inspectors' found that, with the exception of the identified violation, the licensee was complying with the Order. The results of the inspectors' interviews with many of your employees indicated that workers felt they could raise safety concerns without fear of retaliation, but that some workers were taking a "wait-and-see" attitude regarding the effective implementation of ADOT&PF's new SCWE programs. The inspectors also found that, prior to the inspection, your management team had not implemented a tracking mechanism or other controls to ensure the requirements of the long term plan would be implemented as required. Based on the inspectors' observation, your management team took actions to begin tracking the requirements in the long term plan to ensure they would be met. Lastly, the repetitive nature of some inspection findings indicated that ADOT&PF has not achieved full compliance with NRC regulations. All of these inspection findings indicate that continued management attention and oversight is needed to ensure that lasting corrective actions are taken to comply with NRC requirements.

Also, based on the results of this inspection, the NRC has determined that the licensee's corrective actions for four previously issued violations were adequate to consider the violations closed. Three other previously issued violations remain open and the licensee's continuing corrective actions will be reviewed by the NRC during future inspections.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, Enclosures 1 & 2, and your response will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Should you have any questions concerning this inspection or the enclosed report, please contact Janine F. Katanic, Ph.D. at (817) 860-8151 or Mark R. Shaffer at (817) 860-8287.

Sincerely,

*/RA/*

Leonard D. Wert, Jr., Director  
Division of Nuclear Materials Safety

Docket No.: 030-07710  
License No.: 50-14102-01

Enclosures:

1. Notice of Violation
2. NRC Inspection Report  
030-07710/05-001
3. NRC Information Notice 96-28

cc w/Enclosures 1 & 2:

<p>Mr. Clyde E. Pearce Alaska Radiation Control Program Director Radiological Health Program State Public Health Laboratories Department of Health &amp; Social Services 4500 Boniface Parkway Anchorage, AK 99507</p>	<p>Ms. Billie P. Garde, Esq Law Office Clifford &amp; Garde 1620 L Street, N.W., Suite 625 Washington DC 20036</p>
<p>Ms. Kim Stricklan Alaska Department of Environmental Conservation Environmental Health Division, Solid Waste/Pesticide Program 555 Cordova Street Anchorage, AK 99501</p>	
<p>Mr. Gary Hogins Chief Engineer State of Alaska Department of Transportation &amp; Public Facilities 3132 Channel Drive Juneau, Alaska 99801</p>	
<p>Mr. Michael San Angelo Statewide Materials Engineer State of Alaska Department of Transportation &amp; Public Facilities 5800 East Tudor Road Anchorage, Alaska 99507</p>	
<p>Mr. Greg Christensen Statewide Radiation Safety Officer State of Alaska Department of Transportation &amp; Public Facilities 5800 East Tudor Road Anchorage, Alaska 99507</p>	
<p>Mr. Gary W. Gantz Assistant Attorney General State of Alaska Department of Law 1031 West 4<sup>th</sup> Avenue, Suite 200 Anchorage, Alaska 99501-5903</p>	

bcc w/enclosure (via ADAMS distrib):

BSMallett  
LDWert  
CLCain  
KSFuller  
WAMaier  
GFSanborn  
GMVasquez  
MRShaffer  
JEWhitten  
JFKatanic  
KEGardin  
GMLongo, OGC  
RFretz, OE  
OEMail  
NMIB File  
RIV File (5th Floor)

SISP Review Completed:

ADAMS:  Yes  No Initials: \_JFK\_

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JFKatanic	JEWhitten	MRShaffer	GFSanborn	MJohnson	LDWert
<b>/RA/</b>	<b>/RJTorres for/</b>	<b>/RABrown for/</b>	<b>/GMVasquez for/</b>	<b>/JLuehman for/</b>	<b>/RA/</b>
08/07/05	08/12/05	08/16/05	08/16/05	08/23 /05	09/02/05

\*Previously concurred OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

## ENCLOSURE 1

### NOTICE OF VIOLATION

State of Alaska Department of  
Transportation & Public Facilities  
Anchorage, Alaska

Docket No. 030-07710  
License No. 50-14102-01

During an NRC inspection conducted on May 11-18, 2005, two violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. Section IV, Condition 3.C. of the Confirmatory Order Modifying License (Order) issued March 15, 2004, requires, in part, that the refresher training conducted in calendar year 2005 shall be conducted by individual(s) independent of ADOT&PF who meet the conditions specified in Section IV, Condition 1.A. of the Order. Condition 3.B of the Order requires, in part, that annual refresher training shall include (1) a discussion of the NRC Employee Protection regulations and other applicable federal and state laws pertaining to whistleblower protection, (2) ADOT&PF policies and procedures for maintaining a Safety Conscious Work Environment, and (3) the roles and responsibilities of the statewide and regional radiation safety officers in assuring compliance with NRC safety requirements.

Contrary to the above, during training sessions conducted on May 11, 2005, the licensee failed to conduct refresher training by individuals independent of ADOT&PF. Specifically, licensee employees conducted the portions of the training that included (1) a discussion of NRC Employee Protection regulations and other applicable federal and state laws pertaining to whistleblower protection, (2) ADOT&PF policies and procedures for maintaining a Safety Conscious Work Environment, and (3) the roles and responsibilities of the statewide and regional radiation safety officers in assuring compliance with NRC safety requirements.

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

- B. 10 CFR 20.2107 requires, in part, that each licensee shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public. The dose limits for individual members of the public are specified in 10 CFR 20.1301.

Contrary to the above, the licensee failed to maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public. Specifically, the licensee had performed radiation measurements and/or calculations such that the facilities had been evaluated to demonstrate compliance with the dose limits for individual members of the public. However, in several instances, the licensee's records of their measurements, calculations, and/or analyses were lacking in sufficient detail to demonstrate compliance with the regulatory requirement.

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

Pursuant to the provisions of 10 CFR 2.201, State of Alaska Department of Transportation & Public Facilities is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region IV, within 30 days of the date of this Notice of

Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (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 Web site at <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 or proprietary 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 2.790(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 two working days.

Dated this 2<sup>nd</sup> day of September 2005

## ENCLOSURE 2

U.S. Nuclear Regulatory Commission  
Region IV

Docket No.: 030-07710

License No.: 50-14102-01

Report No.: 030-07710/05-001

EA Nos.: 03-126  
03-190

NMED No.: 011072

Licensee: State of Alaska Department of Transportation  
& Public Facilities

Facility: State of Alaska Department of Transportation  
& Public Facilities

Locations: Anchorage, Alaska (Central Region)  
Fairbanks, Alaska (Northern Region)  
Temporary portable nuclear gauge storage locations and  
temporary job sites throughout the Central and Northern Regions

Dates: May 11, 2005 - August 4, 2005

Inspectors: G. Michael Vasquez, Enforcement Specialist  
Janine F. Katanic, Ph.D., Health Physicist

Approved By: Mark R. Shaffer, Chief  
Nuclear Materials Inspection Branch

Attachment: Supplemental Inspection Information

## EXECUTIVE SUMMARY

State of Alaska Department of Transportation & Public Facilities (ADOT&PF)  
NRC Inspection Report 030-07710/05-001

This refers to the inspection conducted on May 11-18, 2005, at ADOT&PF facilities located throughout Alaska. The scope of the inspection included selective examination of procedures and representative records, interviews with personnel, independent radiation measurements, observations of licensed activities, and observation of selected training.

### Program Overview

State of Alaska Department of Transportation & Public Facilities is authorized to use portable nuclear gauging devices at their facilities located in Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska, and at temporary jobsites in areas of NRC jurisdiction. (Section 1)

### Enforcement History

On March 15, 2004, the NRC issued to ADOT&PF a Notice of Violation and Proposed Imposition of Civil Penalties (EA-03-190). A Severity Level II problem and a Severity Level III violation were identified for violations related to radiation exposures to members of the public. Additionally, on March 15, 2004, the NRC issued a Notice of Violation and Confirmatory Order Modifying License (Order) (EA-03-126). The violation documented the NRC's conclusion that the licensee discriminated against one of its employees for raising radiation safety concerns. The licensee agreed to take the actions described in the Order, which the NRC believed were necessary to provide reasonable assurance that an environment would be established and maintained whereby employees can raise safety concerns without fear of retaliation.

Following the NRC's March 15, 2004, enforcement actions, the NRC performed two followup inspections to review the licensee's activities, corrective actions, and compliance with the Order. One inspection identified another example of a previously cited violation related to radiation exposures to members of the public. Another inspection identified one Severity Level IV violation involving the licensee's failure to comply with the terms and conditions of the Order. (Section 2)

### Review of ADOT&PF's Compliance with the Order

On May 11, 2005, the licensee failed to meet Condition 3.C of Section IV of the Order when Safety Conscious Work Environment refresher training was not conducted by individuals independent of ADOT&PF. This was identified as a violation of the terms and conditions of the Order. After the NRC inspectors identified this violation, ADOT&PF took corrective action by having the independent contractors conduct the required portions of the training.

The inspectors found that licensee management had not implemented tracking mechanisms or other controls prior to the inspection to ensure the requirements of the long term plan would be implemented as required. However, based on the inspectors' observations, the licensee management team began tracking the commitments in order to ensure long term plan requirements would be met. (Section 3)



### Assessment of ADOT&PF's Safety Conscious Work Environment

Based on the inspectors' interviews with numerous licensee workers, supervisors and managers, SCWE training was effective in informing workers of their rights to raise safety concerns without fear of retaliation. Workers stated they felt free to raise safety concerns without retaliation, but some workers stated they would take a "wait-and-see" approach regarding effective implementation of the Department's new SCWE programs. (Section 3)

### Review of Corrective Actions Related to Previously Issued Findings

A previously issued finding of a Severity Level II problem for the licensee's willful failure to conduct operations so that the total effective dose equivalent to individual members of the public from licensed operations did not exceed 0.1 rem in a year was not fully reviewed during this inspection and is considered open. (Section 5)

The inspectors reviewed the licensee's corrective actions related to a previously issued Severity Level II problem for the licensee's willful failure to comply with 10 CFR 20.1302(a), which requires, in part, that the licensee shall make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public. It was found that although the licensee appeared to be conducting the necessary surveys to demonstrate compliance with the requirements of 10 CFR 20.1302(a), in several instances, the licensee's documentation was not sufficient to demonstrate compliance with the dose limits for individual members of the public.

10 CFR 20.2107 requires, in part, that each licensee shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public. The licensee's failure to maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public was identified as a violation of 10 CFR 20.2107. (Section 5)

Additionally, three previously issued violations were reviewed, found to be corrected, and are considered closed. These violations involved the licensee's failure to: (1) advise each worker annually of the worker's dose during calendar years 1997 through 2002, (2) perform surveys with a radiation detection instrument weekly during maintenance periods, and (3) provide copies of reports submitted to the Commission pursuant to the provisions of 10 CFR 20.2203, to identified members of the public at a time no later than transmittal of the reports to the Commission. (Sections 4-6)

## **Report Details**

On May 11-18, 2005, an announced inspection of licensed activities was conducted by the NRC of the licensee's facilities in Anchorage and Fairbanks, Alaska. This inspection included a review of two of the licensee's main nuclear gauge storage locations as well as a review of several temporary jobsite locations or areas of temporary nuclear gauge storage. The scope of the inspection included selective examination of procedures and representative records, interviews with personnel, independent radiation measurements, observations of licensed activities, and observation of selected training sessions.

### **1 Program Overview (87124)**

#### **1.1 Inspection Scope**

The license application, supporting documents, and other records provided by the licensee were reviewed. Collectively, these documents describe the licensee's nuclear gauge radiation safety program. The inspectors also interviewed licensee personnel and toured various State of Alaska Department of Transportation & Public Facilities (ADOT&PF) facilities.

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

State of Alaska Department of Transportation & Public Facilities is authorized under NRC Byproduct Materials License 50-14102-01 to possess and use portable nuclear gauging devices for measuring physical properties of materials. Licensed material is authorized to be used at the licensee's facilities located in Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska, and at temporary jobsites in areas of NRC jurisdiction.

#### **1.3 Conclusions**

State of Alaska Department of Transportation & Public Facilities is authorized to use portable nuclear gauging devices at their facilities located in Anchorage, Fairbanks, and Juneau, and Ketchikan, Alaska, and at temporary jobsites in areas of NRC jurisdiction.

### **2 Enforcement History (87124)**

On March 15, 2004, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalties (EA-03-190) to ADOT&PF. A Severity Level II problem was identified for two violations involving: (1) the licensee's willful failure to conduct operations so that the total effective dose to individual members of the public did not exceed 0.1 rem in a year, and (2) the licensee's willful failure to make or cause to be made, as appropriate, surveys of radiation levels to demonstrate compliance with the dose limits for individual members of the public. A Severity Level III violation was also identified for the licensee's willful failure to provide a copy of the reports submitted to the NRC to the individual members of the public at a time no later than the transmittal to the NRC.

In addition, on March 15, 2004, the NRC also issued a Notice of Violation and Confirmatory Order Modifying License (Order) (EA-03-126) to ADOT&PF. This Notice of Violation documented the NRC's conclusion that, between 1999 and 2002, the licensee discriminated against one of its employees for raising safety concerns. The licensee agreed to take the actions described in the Order, which the NRC believed

were necessary to provide reasonable assurance that an environment would be established and maintained where employees can raise safety concerns without fear of retaliation.

Following the NRC's March 15, 2004, enforcement actions, the NRC performed two followup inspections to review the licensee's activities, corrective actions, and compliance with the Order. An inspection conducted on June 22-24, 2004, identified another example of the previously cited violation of 10 CFR 20.1302(a) regarding the licensee's failure to make or cause to be made, as appropriate, surveys of radiation levels in the vicinity of temporary nuclear gauge storage locations to demonstrate compliance with the dose limits for individual members of the public. In addition, an inspection conducted on September 7-17, 2004, identified one Severity Level IV violation involving the licensee's failure to comply with the terms and conditions of the Order. Specifically, during training required by the Order, the licensee failed to discuss 10 CFR 30.7, "Employee Protection," and enforcement actions that may be taken against licensees and individuals who violate these requirements. The two required items were not discussed during the training session or in the written material provided to the training attendees.

### **3 Review of ADOT&PF's Compliance with the Order**

#### **3.1 Inspection Scope**

This portion of the inspection consisted of interviews with ADOT&PF managers and employees, reviews of licensee documentation and records pertaining to the licensee's actions in response to the Order, observation of training sessions, reviews of training materials, and reviews of the licensee's employee safety culture survey.

#### **3.2 Observations and Findings**

On March 15, 2004, the NRC issued to ADOT&PF an Order which outlined the actions agreed to by the licensee to ensure that a safety conscious work environment (SCWE) would be established and maintained. The Order focused on (1) ensuring that the ADOT&PF's internal policies and procedures establish and support a SCWE, (2) assessing ADOT&PF's SCWE through an employee cultural survey, (3) developing a plan to conduct training of ADOT&PF managers and staff and (4) developing a long-term plan for maintaining a SCWE.

##### **3.2.1 Training Required by the Order**

On May 20 and 28, 2004, as required by the Order, ADOT&PF submitted to the NRC its plans to review their internal policies and procedures and to conduct initial training on the NRC's employee protection regulations and the attributes of a SCWE. The training plan submitted by ADOT&PF provided for separate training sessions for ADOT&PF managers and employees. In response to the specific conditions of the Order, the licensee retained and contracted the services of Employee Concerns Program Forum, Inc. (ECPF) to review ADOT&PF's internal policies and procedures and to conduct the initial SCWE training.

The initial SCWE training was conducted between June 14-21, 2004, and a make-up session was held on September 7, 2004. The NRC inspectors observed the

September 7, 2004, make-up training session and identified that two elements required by Section IV, Condition 2.B. of the Order were not met. Specifically, it was noted that the material presented during the training did not address 10 CFR 30.7, "Employee Protection," nor did it discuss enforcement actions that may be taken against licensees and individuals who violate these requirements. These two elements were also not discussed in the written training materials provided to the attendees nor in the speaker's presentation notes. The licensee's failure to discuss the two required elements was identified as a violation of the Order (030-07710/2004-001). Following the inspection, on September 28 and 29, 2004, ADOT&PF transmitted two memos to all attendees of the 2004 initial SCWE training. The memos discussed the previously omitted items and provided copies of 10 CFR 30.7. In addition, the licensee posted copies of the memos with their regular radiation safety postings to help facilitate distribution of the omitted information. Accordingly, violation 030-07710/2004-001 is considered closed.

Section IV, Condition 3.B. of the Order requires, in part, that ADOT&PF shall conduct annual refresher training of workers, including temporary workers, involved in the use of licensed material and the radiation safety program, as well as the supervisors and managers of these individuals. Section IV, Condition 3.B. of the Order further requires, in part, that refresher training shall include a discussion of (1) the NRC Employee Protection regulations and other applicable federal and state laws pertaining the whistleblower protection, (2) ADOT&PF's policies and procedures for maintaining a SCWE, and (3) the roles and responsibilities of the statewide and regional radiation safety officers (RSOs) in assuring compliance with NRC radiation safety requirements. On May 11 and 16, 2005, the inspectors observed SCWE refresher training sessions that were given to both managers and employees. The inspectors noted that the training discussed the items that had been omitted from the 2004 initial SCWE training and that content of the SCWE refresher training met the requirements of Section IV, Condition 3.B. of the Order.

Section IV, Condition 3.C. of the Order requires, in part, that the refresher training conducted in calendar year 2005 shall be conducted by individuals independent of ADOT&PF who meet the conditions specified in Section IV, Condition 1.A. of the Order. The inspectors observed that during the May 11, 2005, SCWE training sessions given to managers and employees, portions of the training were conducted by two of the same contractors who conducted the initial training in 2004, and who met the conditions of Section IV, Condition 1.A of the Order. However, a large portion of the training was conducted by ADOT&PF personnel, specifically the Statewide RSO and the Statewide Safety Officer. In particular, ADOT&PF personnel provided training on the specific three elements that were required by the Order (Section IV, Condition 3.B). In addition, the southeast region's RSO also conducted a small part of the training. The inspectors observed that the Statewide RSO, the Statewide Safety Officer, and the southeast region RSO all did a good job in conducting their portions of the training, and all appeared credible.

The inspectors compared ADOT&PF's actions with its NRC-approved long term plan, which is documented by the licensee in a letter dated September 30, 2004, and discussed its actions with licensee representatives. Because calendar year 2005 was scheduled to be the last year the licensee planned to use contractors to conduct SCWE training, ADOT&PF wanted the contractors to train selected ADOT&PF employees to conduct future SCWE training. To that end, the licensee's long term plan states that the

contractors would provide "train-the-trainer" training to selected licensee personnel, who would be the SCWE instructors for future training sessions.

The inspectors confirmed that in March 2005, the contractors conducted "train-the-trainer" training to several licensee employees, including the Statewide RSO, the Statewide Safety Officer, and the southeast region RSO. The contractor had developed the SCWE training materials and slides including an "Instructor's Handbook" for the selected ADOT&PF employees. The "train-the-trainer" training included a review of each slide of the SCWE training and the discussion points to emphasize in each slide.

The licensee's long term plan states that, as part of the (train-the-trainer) training, its employees would assist the contractors during the 2005 SCWE refresher training. The licensee's thought process was that, as part of the train-the-trainer training, the selected ADOT&PF employees would teach part of the 2005 refresher training sessions under the supervision of the contractors. Indeed, the inspectors observed that the contractors provided oversight of the selected ADOT&PF personnel during the conduct of the training. The fact that a large portion of the required refresher training had been conducted by licensee personnel rather than individuals independent of ADOT&PF may have improved the credibility of the training and the receptiveness of some of the licensee's employees (as indicated in the interview results below). Nevertheless, the Order is explicit in requiring that the refresher training in calendar year 2005 be conducted by individuals independent of ADOT&PF (and who met certain conditions), and the licensee had not requested relief from that requirement.

The licensee's failure to ensure that refresher training conducted in calendar year 2005 be conducted by individuals independent of ADOT&PF who meet the conditions specified in Section IV, Condition 1.A. of the Order was identified as a violation of Section IV, Condition 3.C. of the Order. (030-07710/2005-001)

After this issue was discussed with licensee representatives on May 12, 2005, ADOT&PF arranged for its contractors to conduct the remaining SCWE training sessions, and made its personnel available for questions. The inspectors observed the refresher SCWE training conducted on Monday, May 16, 2005, and observed the licensee's contractors conduct the training.

### 3.2.2 Interview Results

During the period of May 11-18, 2004, the inspectors interviewed approximately 30 members of ADOT&PF's personnel who had attended the 2005 refresher SCWE training. This was a non-scientific sampling of training attendees in order to independently assess the effectiveness of the licensee's SCWE training as well as the effectiveness of the licensee's new SCWE program. Personnel interviewed were chosen at random by the inspectors and included senior managers, mid-level managers, first-line supervisors and members of the technical staff (permanent and temporary portable nuclear gauge users). Prior to the inspection, the NRC inspectors developed a sample set of interview questions based on the key concepts contained in the Commission's 1996 Policy statement entitled, "Freedom of Employees in the Nuclear Industry to Raise Safety Concerns Without Fear of Retaliation," as well as other more recent NRC guidance.

The interview questions focused on ADOT&PF management support for establishing an environment where workers felt free to identify concerns without fear of retaliation, management communications to employees regarding SCWE, management involvement in preventing discrimination and/or a chilling effect, alternative means for raising concerns, and appeals processes for raised concerns. The inspectors also asked questions regarding the content of the SCWE training and whether the attendees had an understanding of the purpose of and reasons for the SCWE training.

The interviews indicated that ADOT&PF workers understood that they had the right to raise safety issues, and that it was against the law for managers to retaliate against them because of their concerns. Some workers also indicated they were glad to know their supervisors and managers were also required to take the SCWE training. All workers interviewed understood that the NRC had cited ADOT&PF for a violation of NRC's employee protection requirements, and understood why the SCWE training was being conducted. Several workers explained that they had been confused about why the initial SCWE training (conducted in 2004) was needed at ADOT&PF especially during the busy construction season, but that the 2005 refresher training made it clearer for them. Some individuals stated the training "made more sense" this year. Based on the comments to the inspectors, it appeared that workers were more receptive to the SCWE training by scheduling it prior to the busy construction season.

During the SCWE refresher training, the inspectors observed that the attendees were informed that the ADOT&PF Commissioner supported the SCWE program, and the inspectors observed the Construction Engineer provide an introduction to the training by stressing the importance of SCWE. However, when interviewed, most workers stated that neither their supervisors nor managers had expressly articulated support for the new SCWE program. Moreover, first line supervisors stated that their managers had not articulated their support for the new program nor had communicated any expectations to them. The managers interviewed confirmed they had not articulated their support for the program to those under their supervision, but all stated they did support the program. All of the workers and supervisors stated they felt they could raise safety concerns without fear of retaliation, but managers and senior managers had not reinforced their support for ADOT&PF's new SCWE program. When asked if they believed their managers and senior managers supported the new SCWE program, one worker articulated the sentiments of others by saying he would take a "wait and see" attitude. The inspectors reinforced with licensee management that in order for a SCWE program to be effective, workers need to believe their senior managers, managers and supervisors support the program.

When interviewed, workers on project sites discussed examples where they or a co-worker had raised safety concerns involving construction or industrial hazards, and in each example the workers observed that the concern had been adequately addressed. The licensee was accustomed to addressing construction and industrial hazards. Workers provided few examples where individuals had raised radiation safety concerns, simply because there were many more construction/industrial safety issues (nuclear gauges aren't used every day or on every project). Each ADOT&PF manager and worker interviewed stated that there was a much greater awareness and emphasis on radiation safety within their organization than they had ever seen and that there was a great deal of emphasis on handling portable nuclear gauges, and preventing radiation exposures. Interviewees also had an understanding that the NRC had concluded that

ADOT&PF had several violations of NRC requirements, including members of the public exposed to radiation in excess of NRC's regulatory limits.

Several workers stated that the fact that they observed ADOT&PF personnel conduct part of the training, indicated to them that the licensee was taking the SCWE program seriously. In fact, one worker stated that he thought the ADOT&PF personnel who conducted the refresher training had more credibility than the contractors.

### 3.2.3 Safety Culture Survey

During the initial SCWE training given in 2004, the first hour of each training session was allotted for the attendees to voluntarily participate in an employee cultural survey, consistent with Section IV, Condition 3.A. of the Order. The anonymous "Organizational and Safety Culture Survey" contained 201 questions which were designed by the consulting group to assess and evaluate the participants' attitudes toward and understanding of ADOT&PF's safety culture.

The data collected from the licensee's 2004 safety culture survey were analyzed by ADOT&PF's contractor. On August 11, 2004, the contractor provided to ADOT&PF a report that described the results of the data analysis and assessed the safety culture and SCWE within the ADOT&PF organization. Consistent with Section IV, Condition 3.A. of the Order, on February 25, 2005, ADOT&PF submitted to NRC an annual report for the year 2004 which provided a summary of the findings of the cultural survey, the questions used in the survey, and the methodology applied. The findings described in the ADOT&PF's annual report for 2004 were reviewed by the NRC.

The inspectors questioned licensee managers about the 2004 survey results and implications, and about the licensee's lack of any follow-up actions. ADOT&PF management stated it reviewed the contractor's analysis, but that the results occasionally conflicted and were difficult to interpret. Licensee managers did not fully agree with all the contractor's recommendations of areas for improvement. At the time of the inspection, the licensee was implementing several major changes, including: developing and implementing an employee concerns program, conducting SCWE refresher training (which included training on the licensee's new employee concerns program), and modifying its Safety Manual to incorporate the SCWE program (as defined in the long term plan). Licensee management did not believe that the survey results presented sufficient information for modifying or altering the activities it had already planned to conduct. Instead, licensee management believed the 2004 survey results would provide a baseline from which to assess the 2005 results (which would consider the new changes ADOT&PF was implementing). The inspectors concluded that the licensee had met the requirement for conducting the 2004 safety culture survey and had provided the results to the NRC as required.

The Order also required the licensee to conduct a second culture survey in calendar year 2005. At the end of each 2005 refresher SCWE training session, time was allotted for the attendees to voluntarily participate in an employee cultural survey, consistent with Section IV, Condition 3.A. of the Order. The anonymous "Organizational and Safety Culture Survey" used was the same survey given during the 2004 initial SCWE training sessions. The long term plan stated that the results of the 2005 culture survey would be provided to the NRC on or before December 31, 2005.

### 3.2.4 Long-Term Plan

Consistent with Section IV, Condition 3 of the Order, on October 21, 2004, ADOT&PF submitted, for NRC approval, a long-term plan for maintaining a SCWE. This plan was reviewed by NRC and, as a result, the licensee was asked to provide additional clarifying information. An amended long-term plan was submitted by ADOT&PF on November 30, 2004 (although the letter was erroneously dated September 30, 2004). The NRC reviewed ADOT&PF's revised long-term plan and concluded that it adequately addressed NRC's questions and that it met the Order. Accordingly, the NRC approved ADOT&PF's revised long-term plan by letter dated January 27, 2005.

As required by Section IV, Condition 3.D. of the Order, on October 21, 2004, ADOT&PF requested an amendment to its license to require that its long-term plan for maintaining a SCWE be maintained and implemented. On February 8, 2005, NRC issued Amendment No. 30 to License No. 50-14102-01, which required that the licensee implement and maintain a plan for maintaining a SCWE.

As required by the Order, the long-term plan included a discussion of the review required by Condition 1, including a discussion of ADOT&PF's plan and schedule for addressing the recommendations made by its contractors. At the time of the inspection, the licensee's long-term plan stated that many activities would be completed on or before May 31, 2005, approximately two weeks after the onsite inspection. When the inspectors inquired on the status of the items, the inspectors found that the licensee was not tracking any of the items and had not begun work on several of the items that were due on or before May 31, 2005. The licensee had not reviewed the long term plan line by line to ensure that all activities it committed to would be completed within the deadlines (which are license requirements). Licensee management had no controls (e.g., commitment tracking) to ensure that these license requirements would be met.

The inspectors discussed this observation with senior licensee management and recalled that the violation of the Order issued on January 25, 2005, had similar causes. The licensee's reply to that violation, dated February 24, 2005, stated, in part, that "no one took the time to go line by line comparing the training with the requirements of the Confirmatory Order." Just as in the circumstances with that violation of the Order, although the licensee was familiar with the commitments in the long term plan, no one had taken the time to review the long term plan line by line to ensure all actions would be completed by the required deadline. Additionally, licensee management was not tracking the long term plan commitments. This lack of management oversight could have lead to future violations of the long term plan. As a result of the observations of the inspectors, the Chief Engineer, a senior licensee manager, stated he would take ownership of the long term plan. The Chief Engineer illustrated management's efforts to begin tracking the items in the long term plan in order to ensure they would be completed on time. This additional management control (commitment tracking) should help prevent future violations of the long term plan. The Chief Engineer stated he had been designated by the Commissioner to take responsibility for the long term plan and was authorized to approve changes to the plan.



### 3.3 Conclusions

On March 15, 2004, the NRC issued ADOT&PF an Order which outlined the actions agreed to by the licensee to ensure that a SCWE would be established and maintained. Section IV, Condition 3.C. required that refresher training conducted in calendar year 2005 be conducted individuals independent of ADOT&PF who meet certain requirements. However, the inspectors observed that refresher training conducted on May 11, 2005, was conducted ADOT&PF employees. This was identified as a violation of the terms and conditions of Order.

The inspectors interviewed approximately 30 ADOT&PF personnel who had attended the SCWE refresher training. Interviews indicated that workers would feel free to raise safety concerns and had examples where they or other co-workers raised construction/industrial safety concerns without retaliation. The inspectors' non-scientific sampling of licensee workers indicated that the SCWE training appeared effective in informing workers of their right to raise safety concerns without fear of retaliation.

Licensee management had not implemented tracking mechanisms or other controls prior to the inspection to ensure the requirements of the long term plan would be implemented as required. However, based on the inspectors' observations, licensee management began tracking the commitments in order to ensure long term plan requirements were met.

## **4 Radiation Exposures of Monitored Individuals (87124)**

### 4.1 Inspection Scope

This portion of the inspection consisted of interviews with licensee personnel and reviews of licensee documentation and records pertaining to the radiation safety program.

### 4.2 Observations and Findings

10 CFR 19.13(b) requires, in part, that each licensee shall advise each worker annually of the worker's dose as shown in records maintained by the licensee pursuant to the provisions of 10 CFR 20.2106. In the October 2003 Notice, a Severity Level IV violation of 10 CFR 19.13(b) was issued for the licensee's failure to advise each worker annually of the worker's dose during the calendar years 1997-2002 (030-07710/2001-007).

In response to the violation, the licensee contracted with their radiation safety service provider to compile annual reports to monitored individuals regarding their occupational radiation doses for each for calendar year during the time period of 1997-2003. The service provider assimilated the necessary data, developed the annual reports, and provided them to ADOT&PF. At the time of the NRC's September 2004 inspection, the final reports for time period of 1997-2003 had not been provided to the monitored individuals because of delays due to an improper format used by the licensee to compile the reports. After the licensee made the necessary corrections, the reports for time period of 1997-2003 were provided to monitored individuals in November 2004. A sample of the reports was reviewed by the inspector and was found to be in compliance with the regulatory requirements. Accordingly, Violation 030-07710/2001-007 is considered closed.

Regarding notifications and reports to individuals, 10 CFR 19.13(a) requires, in part, that each notification and report shall be in writing; include appropriate identifying data such as the name of the licensee, the name of the individual, the individual's social security number; include the individual's exposure information; and contain the following statement: "This report is furnished to you under the provisions of the Nuclear Regulatory Commission regulation 10 CFR part 19. You should preserve this report for further reference." The inspector also reviewed copies of reports for the monitoring year 2004 that were provided to monitored individuals in March 2005 pursuant to 10 CFR 19.13(b). A sample of the reports was reviewed by the inspector and were found to contain an incorrect license number and several reports contained an inaccurate record of the monitored individual's lifetime dose. In addition, the licensee failed to include the statement "This report is furnished to you under the provisions of the Nuclear Regulatory Commission regulation 10 CFR part 19. You should preserve this report for further reference." Although this issue should be corrected, it constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the Enforcement Policy.

#### 4.3 Conclusions

In the October 2003 Notice, a Severity Level IV violation of 10 CFR 19.13(b) (030-07710/2001-007) was issued for the licensee's failure to advise each worker annually of the worker's dose during calendar years 1997 through 2002. The reports for time period of 1997-2003 were reviewed by the inspector and were found to have been provided to monitored individuals in November 2004 and were in compliance with the regulatory requirements. Accordingly, Violation 030-07710/2001-007 is considered closed.

The inspector also reviewed copies of reports for the monitoring year 2004 that were provided to workers pursuant to 10 CFR 19.13(b). The licensee failed to include the statement required by 10 CFR 19.13(a) in the reports to the monitored individuals. Although this issue should be corrected, it constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the Enforcement Policy.

### **5 Radiation Exposures to Members of the Public (87124)**

#### 5.1 Inspection Scope

This portion of the inspection consisted of interviews with licensee personnel, reviews of licensee documentation and records, and independent radiation measurements of the licensee's facilities and temporary nuclear gauge storage locations.

#### 5.2 Observations and Findings

10 CFR 20.1302(a) requires, in part, that the licensee shall make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10 CFR 20.1301. Pursuant to 10 CFR 20.1003, *survey* means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer,

release, disposal, or presence of radioactive material or other sources of radiation. When appropriate, such an evaluation includes a physical survey of the location of radioactive material and measurements or calculations of levels of radiation, or concentrations or quantities of radioactive material present. 10 CFR 20.1003 provides, in part, that *member of the public* means any individual except when that individual is receiving an occupational dose, and that *occupational dose* means the dose received by an individual in the course of employment in which the individual's assigned duties involve exposure to radiation or to radioactive material.

The licensee has not been able to achieve full compliance with the regulatory requirements of 10 CFR 20.1302(a), as evidenced by the repetitive nature of NRC's inspection findings. On August 19, 1997, the NRC issued to ADOT&PF a Severity Level IV violation for failure to comply with 10 CFR 20.1302(a) (030-07710/1997-001). In the March 2004 Notice, the NRC identified a Severity Level II problem for the licensee's willful failure to comply with 10 CFR 20.1302(a) (030-07710/2001-005). An NRC inspection conducted in June 2004, of ADOT&PF's permanent nuclear gauge storage facilities and several temporary gauge storage locations, identified another example of the licensee's previously cited violation of 10 CFR 20.1302(a). Following the NRC's inspection, on August 23, 2004, the licensee submitted a letter to the NRC which stated, in part, "we have conducted surveys at all temporary and permanent storage facilities and have determined that they meet the requirements of 10 CFR 20.1302. Sites were evaluated using instrument readings and/or by calculation." An NRC inspection conducted in September 2004 indicated that, for the majority of nuclear gauge storage locations reviewed by the inspectors, the licensee had the results of radiation measurements or had performed calculations such that the facilities had been adequately evaluated to demonstrate compliance with the requirement. However, it was also noted that in a few instances, the licensee's analyses were lacking in sufficient detail to demonstrate compliance with the regulatory requirement. The inspectors noted that licensee was in the process of implementing corrective action to more consistently perform the required evaluations. Specifically, the licensee obtained radiation detection/measurement instrumentation for the Statewide RSO and each regional RSO. In addition, the Statewide RSO discussed the regulatory requirements at the licensee's annual radiation safety team meeting. As a result of that meeting, a procedure and standard methodology was developed to help facilitate demonstration of compliance with the requirement.

In letter dated November 9, 2004, ADOT&PF responded to NRC's March 15, 2004, Notice (EA-03-190). In its response, ADOT&PF partially denied that they had violated the requirements of 10 CFR 20.1302(a). The basis for ADOT&PF's denial appeared to indicate the licensee's continuing misunderstanding of the regulation and how to demonstrate compliance with the requirement. In a letter to the licensee dated February 15, 2005, NRC acknowledged that ADOT&PF was making additional efforts to comply with the requirement but that it appeared that additional management attention and oversight was needed to ensure that their corrective actions are effectively implemented to prevent future violations.

Because of the licensee's enforcement history related to the requirements of 10 CFR 20.1302(a) and the importance that the licensee conduct operations so that the total effective dose to individual members of the public not exceed the regulatory limit, the inspectors reviewed how the licensee demonstrated compliance with the requirement. For each of ADOT&PF's regions, the inspectors conducted interviews with the Statewide

and regional RSOs and reviewed a sample of the licensee's documentation and records to demonstrate compliance with the requirement.

10 CFR 20.2107 requires, in part, that each licensee shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public. The dose limits for individual members of the public are specified in 10 CFR 20.1301. Specifically, 10 CFR 20.1301(a)(1) requires, in part, that the licensee conduct operations so that the total effective dose to individual members of the public from licensed operations does not exceed 0.1 rem in a year and 10 CFR 20.1301(a)(2) requires, in part, that the licensee conduct operations so that the dose in any unrestricted area does not exceed 0.002 rem in any one hour.

The inspectors noted that in most cases, based on a review of documentation and interviews with licensee personnel, the licensee appeared to be conducting appropriate surveys to demonstrate compliance with the requirements of 10 CFR 20.1302(a). Specifically, in most cases, the licensee had the results of radiation measurements or had performed calculations to demonstrate compliance with the dose limits for individual members of the public and had maintained records sufficient to demonstrate compliance. However, in several instances, the documentation was not sufficient to demonstrate compliance with the dose limits for individual members of the public. Additionally, when questioned regarding the documentation, licensee personnel were not able to explain how they arrived at the conclusions that were documented. Some examples were noted as follows: an example where the licensee took sufficient radiation measurements but did not demonstrate compliance with the dose limits on the written record, an example where the licensee demonstrated compliance with the dose limit in 10 CFR 20.1301(a)(2) but not with the dose limit in 10 CFR 20.1301(a)(1), two examples where the licensee used unrealistic assumptions in their calculations, such as a member of the public only being exposed for five minutes a year, and three examples where the licensee did not document or could not explain the assumptions that were used in their calculations. In these examples, contrary to 10 CFR 20.2107, the licensee failed to maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public. The licensee's failure to maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public was identified as a violation of 10 CFR 20.2107. (030-07710/2005-002)

10 CFR 20.1301(a)(1) requires, in part, that the licensee conduct operations so that the total effective dose to individual members of the public from licensed operations does not exceed 0.1 rem in a year. In the March 2004 Notice, the NRC identified a finding of a Severity Level II problem for the licensee's willful failure to conduct operations so that the total effective dose equivalent to individual members of the public from licensed operations did not exceed 0.1 rem in a year (030-07710/2001-002). Due to the licensee's ongoing challenge to demonstrate compliance with dose limits for individual members of the public, Violation 030-07710/2001-002 was not fully reviewed during this inspection and is considered open.

10 CFR 20.2205 requires, in part, that when a licensee is required, pursuant to the provisions of 10 CFR 20.2203, to report to the Commission an exposure, to radiation or radioactive material, of an identified member of the public, the licensee shall also provide a copy of the report submitted to the Commission to the individual. This report must be transmitted at a time no later than the transmittal to the Commission. In the March 2004 Notice, the NRC identified a Severity Level III violation for the licensee's

willful failure to provide copies of reports submitted to the Commission pursuant to the provisions of 10 CFR 20.2203, to six identified members of the public at a time no later than transmittal of the reports to the Commission (030-07710/2001-003). The licensee's corrective actions in response to the violation were reviewed. On September 5, 2003, the licensee transmitted, to the affected individuals, copies of two different reports submitted by the licensee pursuant to the provisions of 10 CFR 20.2203. The licensee also provided additional training to the Statewide RSO and Statewide Materials Analyst regarding NRC requirements. Accordingly, Violation 030-07710/2001-003 is considered closed.

### 5.3 Conclusions

The regulatory requirements of 10 CFR 20.1302(a) have been a challenge for the licensee, as evidenced by Notices of Violation issued to the licensee in 1997, 2004, and additional inspection findings identified for their failure to comply with this requirement. 10 CFR 20.2107 requires, in part, that each licensee shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public. Though the licensee appeared to be conducting the necessary surveys to demonstrate compliance with the requirements of 10 CFR 20.1302(a), in several instances, the licensee's documentation was not sufficient to demonstrate compliance with the dose limits for individual members of the public. The licensee's failure to maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public was identified as a violation of 10 CFR 20.2107. (030-07710/2005-002)

In the March 2004 Notice, a finding of a Severity Level II problem was issued for the licensee's willful failure to conduct operations so that the total effective dose equivalent to individual members of the public from licensed operations did not exceed 0.1 rem in a year (030-07710/2001-002). This violation was not fully reviewed during this inspection and is considered open.

In the March 2004 Notice, a Severity Level III violation was issued for the licensee's willful failure to provide copies of reports submitted to the Commission pursuant to the provisions of 10 CFR 20.2203, to identified members of the public at a time no later than transmittal of the reports to the Commission (030-07710/2001-003). The licensee was found to have implemented effective corrective actions and the violation is considered closed.

## **6 Maintenance of Portable Nuclear Gauges (87124)**

### 6.1 Inspection Scope

This portion of the inspection consisted of interviews with licensee personnel and reviews of licensee documentation and records pertaining to the radiation safety program.

### 6.2 Observations and Findings

In the October 2003 Notice, a Severity Level IV violation was issued for the licensee's failure to perform surveys with a radiation detection instrument weekly during maintenance periods, as committed to by the licensee in its license

(030-07710/2001-010). The Statewide RSO discussed the licensee's corrective actions with the inspectors. Initially, the licensee had planned to contract with its service provider to perform all non-routine maintenance of nuclear gauges onsite at the licensee's Anchorage facility once per year. However, at the time of the inspection, the licensee was in the process of changing service providers. The new service provider was planning on working with the licensee to develop new procedures and conduct training regarding non-routine maintenance. Through interviews with the Statewide RSO and Statewide Materials Engineer, it was determined that the licensee understood that its non-routine maintenance procedures were committed to in their license and that if ADOT&PF intends to change its procedures, they are required to submit the revised procedures for NRC review and approval before implementing the changes. Accordingly, Violation 030-07710/2001-010 is considered closed.

### 6.3 Conclusions

A Severity Level IV violation was issued in October 2003 for the licensee's failure to perform surveys with a radiation detection instrument weekly during maintenance periods, as committed to by the licensee in its license. The licensee was planning to work with its service provider to develop new non-routine maintenance procedures and then submit the procedures to NRC for review and approval. Accordingly, Violation 030-07710/2001-010 is considered closed.

## 7 **Exit Meeting Summary**

Preliminary inspection findings were discussed briefly with the Deputy Commissioner of Highways & Public Facilities, Chief Engineer, Statewide Materials Engineer, Northern Region Construction Engineer, and other members of the licensee's staff at the conclusion of the onsite portion of the inspection on May 17, 2005. A final telephonic briefing was conducted with Messrs. Gary Hogins, Michael San Angelo, Greg Christensen, and Dan Monteleone of your staff on August 4, 2005.

## ATTACHMENT

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

John MacKinnon, Deputy Commissioner  
Gary Hogins, Chief Engineer  
Michael San Angelo, Statewide Materials Engineer  
Greg Christensen, Statewide Radiation Safety Officer  
Dan Monteleone, Statewide Safety Officer  
Thomas Moses, Regional Construction Engineer  
Longin Krol, Regional Construction Engineer  
Jeanne Dirks, Regional Radiation Safety Officer  
Diana Solie, Regional Radiation Safety Officer  
John Dart, Alternate Regional Radiation Safety Officer

### INSPECTION PROCEDURES USED

87124            Fixed and Portable Gauge Programs

#### ITEMS OPENED, CLOSED, AND DISCUSSED

##### Opened

- 030-07710/2005-001 VIO    Failure to ensure that the refresher training conducted in calendar year 2005 shall be conducted by individual(s) independent of ADOT&PF who meet the conditions specified in Section IV, Condition 1.A. of the Order [Section IV, Condition 3.C. of the Order].
- 030-07710/2005-002 VIO    Failure to maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public [10 CFR 20.2107]

##### Discussed

- 030-07710/2001-002 VIO    Failure to conduct operations so that the total effective dose to individual members of the public did not exceed 0.1 rem [10 CFR 20.1301(a)(1)].
- 030-07710/2001-005 VIO    Failure to make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in accordance with 10 CFR 20.1301 [10 CFR 20.1302(a)].
- 030-07710/1997-001 VIO    Failure to comply with 10 CFR 20.1302(a). The licensee had stored nuclear gauges in a controlled area adjacent to an unrestricted area occupied by a member of the public and had not conducted a survey to demonstrate compliance with the annual dose limit in 10 CFR 20.1301 [10 CFR 20.1302(a)].

Closed

- 030-07710/2001-003 VIO Failure to provide a copy of the reports submitted to the NRC to the individual members of the public at a time no later than the transmittal to the NRC [10 CFR 20.2205].
- 030-07710/2001-007 VIO Failure to advise each worker annually of the worker's dose as shown in records maintained by the licensee pursuant to 10 CFR 20.2106 [10 CFR 19.13(b)].
- 030-07710/2001-010 VIO Failure to comply with the terms and conditions of the license by failing to perform surveys with a radiation detection instrument weekly during maintenance periods [License Condition 17].
- 030-07710/2004-001 VIO Failure to discuss, during SCWE training, 10 CFR 30.7, "Employee Protection," and enforcement actions that may be taken against licensees and individuals who violate these requirements [Section IV, Condition 2.B.(1) and (3) of the Order].

**LIST OF ACRONYMS USED**

ADOT&PF	Alaska Department of Transportation & Public Facilities
CFR	Code of Federal Regulations
ECPF	Employee Concerns Program Forum, Inc.
NMED	Nuclear Materials Events Database
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer
SCWE	Safety Conscious Work Environment
VIO	Violation