



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

August 24, 2007

EAs- 03-126; 03-190
NMED No. 011072

John MacKinnon
Deputy Commissioner, Highways & Public Facilities
State of Alaska Department of Transportation & Public Facilities
3121 Channel Drive, Room 300
Juneau, Alaska 99801

SUBJECT: NRC INSPECTION REPORT 030-07710/07-001

Dear Mr. MacKinnon:

This refers to the inspection conducted on May 21-25, 2007, at your facility in Anchorage, Alaska. The inspection included an onsite review of your Central Region gauge storage location, other locations of temporary gauge storage in the Central Region, and observation of gauges prepared for transportation. The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions in your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. The preliminary inspection findings were discussed with Messrs. Gary Hogins, Michael SanAngelo, Greg Christensen, and you at the conclusion of the onsite inspection. A final exit meeting was conducted telephonically with Messrs. Michael San Angelo and Greg Christensen of your staff on August 6, 2007.

Based on the results of this inspection, no violations were identified; therefore, no response to this letter or the enclosed Inspection Report is required.

Additionally, the inspection included a review of your corrective actions related to five previously issued violations. Of the five previously issued violations, four violations involved regulatory requirements related to NRC's radiation dose limits for individual members of the public, and one violation was related to the conditions of NRC's March 15, 2004, Confirmatory Order Modifying License (Order). Based on the results of this inspection and a review of your corrective actions, the NRC has determined that these five previously issued violations are considered closed.

The inspection also included a review of your compliance with the terms and conditions of NRC's March 15, 2004, Order(EA-03-126). Based on the results of this and previous inspections, the NRC has determined that the requirements of the Order have been satisfactorily met. Please note that you are still required to follow License Condition 21 of NRC Byproduct Materials License 50-14102-01, which requires, in part, that you shall implement and maintain a plan for maintaining a Safety Conscious Work Environment. The NRC will continue reviewing your compliance with this license condition during future inspections.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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>. To the extent possible, your response, if any, should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Should you have any questions concerning this inspection, please contact Janine Katanic, Ph.D., at (817) 860-8151 or Vivian Campbell, Chief, Nuclear Materials Inspection Branch, at (817) 860-8287.

Sincerely,

/RA/

Leonard D. Wert, Director
Division of Nuclear Materials Safety

Docket No.: 030-07710
License No.: 50-14104-01

Enclosure: As Stated

cc w/enclosure:

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- 3 -

(cc list continued):

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bcc w/enclosure (via ADAMS distrib):

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U.S. Nuclear Regulatory Commission
Region IV

Docket No.: 030-07710

License No.: 50-14101-01

Report No.: 2007-001

EA Nos.: 03-126
03-190

NMED No.: 011072

Licensee: State of Alaska Department of Transportation & Public Facilities

Facility: Anchorage, Alaska

Location: Anchorage, Alaska

Dates: May 21-August 6, 2007

Inspector: Janine F. Katanic, Ph.D., Health Physicist
Nuclear Materials Inspection Branch

Accompanied By: Leonard D. Wert, Director
Division of Nuclear Materials Safety

Approved By: Vivian H. Campbell, Chief
Nuclear Materials Inspection Branch

Enclosure: Supplemental Inspection Information

Enclosure

EXECUTIVE SUMMARY

State of Alaska Department of Transportation & Public Facilities (ADOT & PF)
NRC Inspection Report 030-07710/07-001

This refers to the announced inspection that was conducted on May 21-25, 2007, at the licensee's facility in Anchorage, Alaska, and at various locations of temporary nuclear gauge storage in the licensee's Central Region. The scope of the inspection included a selective examination of procedures and representative records, interviews with personnel, independent radiation measurements, and observations of licensed activities.

Program Overview

The ADOT & PF was authorized to use and store portable nuclear gauging devices at their facilities located in Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska, and at temporary job sites in areas of NRC jurisdiction. (Section 1)

Compliance With Dose Limits for Individual Members of the Public

For its locations of permanent nuclear gauge storage as well as for its locations of temporary nuclear gauge storage, the licensee had made, or caused 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. Additionally, the licensee was found to be maintaining records sufficient to demonstrate compliance with NRC's dose limits for individual members of the public. Furthermore, the licensee conducted its operations so that NRC's dose limits to individual members of the public were not exceeded. As a result of the licensee's satisfactory corrective actions, four previously issued violations, involving regulatory requirements related to NRC's radiation dose limits for individual members of the public, are considered closed. (Section 2)

Compliance With Confirmatory Order Modifying License

In accordance with License Condition 21 of License No. 50-14102-01, ADOT & PF was found to be implementing and maintaining a plan for maintaining a Safety Conscious Work Environment (SCWE). NRC's September 2, 2005, Inspection Report transmitted a violation regarding the licensee's failure to ensure that refresher training was conducted by individuals independent of ADOT & PF and who met conditions specified in Section IV, Condition 1.A. of NRC's March 15, 2004, Confirmatory Order Modifying License (Order). Based on the licensee's satisfactory corrective actions, the NRC has closed this violation. Additionally, based on the findings of this inspection and two previous NRC inspections, the NRC has determined that the requirements of the Order have been satisfactorily met. (Section 3)

Report Details

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 described the licensee's nuclear gauge radiation safety program. The inspector also interviewed licensee personnel and inspected various State of Alaska Department of Transportation & Public Facilities (ADOT & PF) nuclear gauge storage facilities.

1.2 Observations and Findings

The licensee was 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 was authorized to be used or stored at the licensee's facilities located in Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska, and at temporary job sites in areas of NRC jurisdiction.

1.3 Conclusions

The licensee was authorized to use and store portable nuclear gauging devices at their facilities located in Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska, and at temporary job sites in areas of NRC jurisdiction.

2 Compliance With Dose Limits for Individual Members of the Public (87124)

2.1 Inspection Scope

This announced inspection consisted of interviews with licensee personnel, reviews of licensee documentation and records pertaining to the licensee's compliance with dose limits for individual members of the public, and independent radiation measurements. Inspection activities were conducted at the licensee's Central Region main portable nuclear gauge storage facility as well as at other locations of temporary nuclear gauge storage in the licensee's Central Region.

2.2 Observations and Findings

The licensee's enforcement history included several enforcement actions associated with requirements related to NRC's dose limits for individual members of the public. Three of the enforcement actions are briefly described herein because these enforcement actions remained open prior to the start of this inspection. Specifically, on August 19, 1997, NRC issued a Notice of Violation including a Severity Level IV violation for the 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 (ADAMS ML072180363). Additionally, on March 15, 2004, NRC issued to ADOT & PF a Notice of Violation and Proposed Imposition of Civil Penalties (EA-03-190) (ADAMS ML040750750). In this enforcement action, 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. Finally, on September 2, 2005, NRC issued a Notice of Violation including a Severity Level IV violation for the failure to maintain records sufficient to demonstrate compliance with the dose limits for individual members of the public (ADAMS ML052450246).

The licensee implemented corrective actions that included the development of a systematic approach to demonstrate compliance with NRC's dose limits for individual members of the public in 10 CFR 20.1301(a). Specifically, the licensee developed a system to demonstrate that: (1) the total effective dose equivalent to individual members of the public from licensed activities did not exceed 100 millirem in a year; and (2) that the dose in any unrestricted area from external sources did not exceed 2 millirem in any one hour. The licensee's systematic approach to public dose evaluation was outlined in its Radiation Protection Program Manual, which described NRC's public dose limits, the licensee's acceptable methods for performing a survey to support demonstration of compliance with NRC's public dose limits, and worksheets to be used by the licensee's staff to document and demonstrate compliance with NRC's public dose limits. The licensee's Statewide Radiation Safety Officer (RSO) trained the licensee's Regional RSOs on the systematic approach so that public dose evaluations in each ADOT & PF region could be consistent for: (1) its permanent gauge storage locations, as well as for (2) its temporary gauge storage locations at job sites.

Regarding its permanent gauge storage locations, the licensee performed actual radiation measurements at various distances and locations at each permanent storage location using an appropriate radiation detection and measurement instrument. These radiation measurements were performed when the number and type of gauges inside the permanent storage location were equivalent to the anticipated maximum number and type of gauges stored at the location, allowing for a conservative dose determination. Actual radiation measurements performed by the licensee were sufficient to demonstrate that the dose in any unrestricted area from external sources did not exceed 2 millirem in any one hour. The results of these actual radiation measurements, along with other factors such as the occupancy of areas adjacent to its permanent gauge storage locations, were used by the licensee to perform a calculation to demonstrate that the total effective dose equivalent to individual members of the public did not exceed 100 millirem in a year.

The frequent movement and relocation of portable nuclear gauges at temporary job sites, coupled with the often extreme remoteness of these sites, had been a challenge faced by the licensee to demonstrate compliance with NRC's public dose limits at these locations. Accordingly, to demonstrate compliance in a consistent manner at all of its temporary job sites, the licensee developed a policy to be implemented when the location or number of gauges stored at a location changed. Specifically, the licensee's policy was to perform a survey of the location within 24 hours if: the number of gauges stored at an existing temporary storage location increased; the gauge storage area at an existing temporary job site was relocated; a new temporary job site gauge storage location was established; or there was a change in occupancy of an area adjacent to a nuclear gauge storage location. The licensee's survey consisted of multiple radiation

measurements at various distances and locations at the storage location using an appropriate radiation detection and measurement instrument. If an actual on-site survey of the gauge storage location was performed, the licensee performed a public dose evaluation based on the actual radiation measurements coupled with a calculation to demonstrate compliance. Using this method, the licensee was able to demonstrate: (1) by measurement that the dose in any unrestricted area from external sources did not exceed 2 millirem in any one hour, and (2) by measurement and calculation that the total effective dose equivalent to individual members of the public did not exceed 100 millirem in a year. If the gauge storage location was very remote or could not otherwise be reached by the Statewide RSO or Regional RSOs within 24 hours, the licensee's policy allowed either: (1) a determination of public dose based on a calculation, using anticipated radiation levels from similar types and numbers of gauges; or (2) a determination of public dose based on radiation measurements of a mock-up of the temporary storage location, using the appropriate type and number of gauges and a detailed map/drawing of the storage location as a guide. For either of these latter two methods, it was the licensee's policy to perform an on-site survey of the gauge storage location at the earliest possible occasion and verify compliance with NRC's public dose limits. When surveys were performed by the licensee, as a matter of convenience and to avoid multiple visits to extreme remote locations, the licensee routinely made its public dose determinations using a conservative number of gauges that could potentially be stored at a given temporary gauge storage location throughout the construction season.

Based on the inspector's review of the licensee's program, for locations of permanent gauge storage as well as for its locations of temporary gauge storage, the licensee had made, or caused to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with NRC's dose limits for individual members of the public in accordance with 10 CFR 20.1301. Accordingly, based on the licensee's corrective actions, violation 030-07710/2001-005 and violation 030-07710/1997-001 are considered closed.

The inspector reviewed the licensee's records related to public dose evaluations for its permanent gauge storage locations as well as for its temporary gauge storage locations for construction year 2006 and the beginning of construction year 2007. When public dose determinations were made and documented by a Regional RSO, the results were forwarded to and reviewed by the Statewide RSO. During these reviews, when clarifications or additional measurements were determined necessary by the Statewide RSO, requests for additional information were forwarded to the responsible Regional RSO for a response. This iterative process served as a learning tool for all parties helped streamline the process, and made the process consistent across each of the licensee's regional offices. The Statewide RSO maintained files for dose evaluations performed at each permanent and temporary gauge storage location. The licensee's records included, as appropriate, the results of radiation measurements, information regarding radiation detection and measurement instrumentation that was used, detailed maps/drawings of each gauge storage location, descriptions of the actual or potential occupancy in the vicinity of each gauge storage location, and written verification that

each evaluation had been reviewed by the Statewide RSO. The inspector found the licensee to be maintaining records sufficient to demonstrate compliance with the dose limit for individual members of the public. Accordingly, based on the licensee's corrective actions, violation 030-07710/2005-002 is considered closed.

In NRC's March 15, 2004, Notice of Violation (EA-03-190) a Severity Level II problem was identified, in part, for a violation involving the licensee's 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. Following that enforcement action, the NRC performed several inspections of licensed activities and did not identify any examples of a failure to conduct operations so that the total effective dose to individual members of the public did not exceed 0.1 rem. However, as noted earlier, during these follow-up inspections, the licensee continued to have difficulty demonstrating compliance with NRC's public dose limits, and the March 15, 2004, violation remained open. During this inspection, the inspector conducted interviews with licensee personnel, reviewed licensee documentation and records pertaining to the licensee's compliance with dose limits for individual members of the public, and performed independent radiation measurements. The inspector found no examples of a failure to conduct operations so that the total effective dose to individual members of the public did not exceed 0.1 rem. Accordingly, violation 030-07710/2001-002 is considered closed.

2.3 Conclusions

For its locations of permanent gauge storage as well as for its locations of temporary gauge storage, the licensee had made, or caused 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. Additionally, the licensee was found to be maintaining records sufficient to demonstrate compliance with NRC's dose limits for individual members of the public. Furthermore, the licensee conducted its operations so that NRC's dose limits to individual members of the public were not exceeded. As a result of the licensee's corrective actions, the four previously issued violations related to NRC's radiation dose limits for individual members of the public, are considered closed.

3 **Compliance With Confirmatory Order Modifying License (87124)**

3.1 Inspection Scope

This portion of the inspection consisted of interviews with ADOT & PF managers and employees, reviews of documentation and records pertaining to the licensee's actions in response to the March 15, 2004, Confirmatory Order Modifying License (EA-126) (Order) (ADAMS ML040760823), reviews of training materials, and reviews of the licensee's maintenance and implementation of a plan for maintaining a Safety Conscious Work Environment (SCWE).

3.2 Observations and Findings

Prior to this inspection, NRC performed two previous inspections of the licensee's compliance with and implementation of the conditions of NRC's Order. The detailed

findings and results of these inspections can be reviewed in the subject inspection reports as follows: NRC Inspection Report 030-07710/2004-002 dated January 25, 2005 (ADAMS ML050250396) and NRC Inspection Report 030-07710/2005-001 dated September 2, 2005 (ADAMS ML052450246).

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. An amended long-term plan was submitted by ADOT & PF on November 30, 2004 (note: the letter was erroneously dated September 30, 2004). The licensee's revised long-term plan was approved by NRC in a letter dated January 27, 2005 (ADAMS ML050280065).

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. Specifically, License Condition 21 requires, in part, that the licensee shall implement and maintain a plan for maintaining a SCWE. The approved plan allowed the licensee the flexibility to implement changes to its plan for maintaining a SCWE without requesting a license amendment, provided the changes or revisions to the program were reviewed and approved by the ADOT & PF Commissioner or Designee. The inspector reviewed the licensee's revisions to their plan for maintaining a SCWE. It was found that changes to the program were reviewed and approved by the ADOT & PF Chief Engineer, who had been designated in writing by the ADOT & PF Commissioner as his designee in these matters.

During the initial SCWE training given in 2004, attendees had the opportunity to voluntarily participate in an employee cultural survey. The survey was designed by a consulting group to assess and evaluate the participants' attitudes toward and understanding of ADOT & PF's safety culture. Consistent with Section IV, Condition 3.A. of the Order, on February 25, 2005, ADOT & PF submitted for NRC review, an annual report that provided a summary of the 2004 cultural survey findings, the questions used in the survey, and the methodology applied. Also as required by the Order, the licensee conducted a culture survey in calendar year 2005. Individuals that attended SCWE training in 2005 were given the opportunity to voluntarily participate in the survey, which was the same survey as that given during the 2004 training. Consistent with Section IV, Condition 3.A. of the Order, on December 21, 2005, ADOT & PF submitted for NRC review, an annual report that provided a summary of the 2005 cultural survey findings. During a previous inspection, the inspector discussed the results of the surveys with licensee management. Licensee management noted that the surveys provided a useful baseline and assisted them in determining areas for improvement. Licensee management also noted that the licensee planned on conducting other employee cultural surveys in the future but that the surveys would be less formal, shorter in length, and more suited to their organization.

A policy statement on SCWE was developed by the licensee as follows: "We are committed to providing an environment that encourages employees to raise concerns without fear of retaliation. It is appropriate for employees to spend work time reporting concerns. Management at all levels invites safety concerns and is committed to the timely investigation and resolution of all safety related issues. We will not tolerate retaliation for raising safety concerns. If this situation arises, appropriate disciplinary

action will be taken.” To help disseminate the licensee’s policy statement on SCWE, the statement was frequently used in licensee documents and communications to their workforce regarding their SCWE program.

The ADOT & PF Radiation Protection Program Manual, issued by the Chief Engineer, contained a description of the licensee’s SCWE program. It provided ADOT & PF’s policy statement on SCWE as well as detailed information regarding formal SCWE training. In particular, initial training for nuclear gauge users consisted of an 8-hour combined radiation safety/SCWE course. Refresher SCWE training for nuclear gauge users would be provided every 2-3 years. Supervisors of nuclear gauge users, such as project engineers, would be provided formal SCWE training, on a rotating basis, every third year. The inspector reviewed the licensee’s SCWE training materials for the 2007 training cycle. The presentation materials included, but were not limited to: a discussion of the reasons for providing SCWE training, a review of the licensee’s previous NRC-issued enforcement actions, a discussion of applicable Federal and State regulations and statutes, characteristics and behaviors of a SCWE, relevant definitions (i.e. protected activity, adverse action, retaliation, chilling effect), and ADOT & PF SCWE program contact information.

NRC’s September 2, 2005, Inspection Report transmitted a Notice of Violation which included a Severity Level IV violation of Section IV, Condition 3.C. of NRC’s Order regarding the licensee’s failure to ensure that the refresher training conducted in calendar year 2005 was conducted by individual(s) independent of ADOT & PF who met the conditions specified in Section IV, Condition 1.A. of the Order [VIO 030-07710/2005-001]. As a corrective action and as provided for in its plan for maintaining a SCWE, the licensee developed its own program to train-the-trainers who would conduct future SCWE training. To be qualified as a SCWE trainer, an individual must have attended a 40-hour safety course and have attended a previous formal session of the licensee’s SCWE training. As a result, several individuals, including the licensee’s Statewide RSO, Regional RSOs, and Statewide Safety Officer (SSO), have been approved by the licensee to conduct SCWE training on its behalf. Each SCWE trainer used the same set of training materials and, to help assure consistency, was provided with identical lecture notes and discussion topics. Based on interviews with licensee employees, it appeared that having ADOT & PF personnel conduct the SCWE training improved the credibility of the training and helped better facilitate open discussion of licensee-specific safety issues. Based on the licensee’s corrective actions, violation 030-07710/2005-001 is considered closed.

The licensee also addressed its SCWE program in the ADOT & PF Construction Manual. The Construction Manual was more widely distributed and reached a larger audience than the ADOT & PF Radiation Protection Program Manual. Licensee management noted that the placement of the SCWE program in the Construction Manual was appropriate since the use of portable nuclear gauges was performed under the licensee’s Regional Construction Chiefs. The applicable section of the ADOT & PF Construction Manual detailed the licensee’s SCWE program, including a discussion of how ADOT & PF planned to evaluate its SCWE program. Specifically, it included a discussion regarding self-assessment of the SCWE program, performing lessons

learned evaluations to share information with others in a timely manner, bench marking the SCWE program to determine "best practices," conducting surveys of the applicable workforce to determine the effectiveness of the SCWE program, and performing an annual review of the SCWE program.

On June 23, 2006, the ADOT & PF Chief Engineer, Statewide RSO, and SSO met to perform an annual review of the licensee's SCWE program. As a result of the meeting, three action items were developed. These action items included obtaining a quote from ADOT & PF's new Commissioner regarding safety. This quote would be utilized as part of SCWE training information and as part of licensee workplace communications regarding SCWE. The licensee also planned on developing, for lack of better terms, a "white paper" regarding the SCWE program. The intent of such a document would be to explain the circumstances that led to the licensee's implementation of a SCWE program and to explain the licensee's efforts in developing the SCWE program. The purpose of the document would be to serve as both a historical record and as a tool to educate new ADOT & PF managers and other individuals as appropriate. The final action item developed during the meeting was related to drafting an employee safety culture survey that could be used to assess the status of the licensee's SCWE program.

The licensee also developed an Employee Safety Concerns Program, which was incorporated into the ADOT & PF Construction Manual. The licensee's Employee Safety Concerns Program was described as an alternative means for employees to raise and resolve safety concerns. The program could be used by employees who were uncomfortable with direct interface or desired anonymity as an avenue for raising safety concerns. To use the program, an employee could telephone, e-mail, or directly contact the SSO. A dedicated telephone number was set up specifically for calls to the Employee Safety Concerns Program help line. The inspector interviewed the SSO regarding the licensee's SCWE and Employee Safety Concerns programs. The SSO indicated that he believed that the program was working because several individuals had either called the help line or contacted him directly to resolve safety concerns. Of the inquiries made to the help line, a majority of the calls were related to industrial safety and only a handful were related to radiation safety concerns. For radiation safety concerns, when appropriate, the SSO coordinated with the Statewide RSO for assistance in resolving the concerns. During the inspector's interview with the SSO, three individuals contacted the SSO by telephone regarding safety issues at ADOT & PF job sites. The issues ranged from a request for safety equipment to a concern about a contractor's activities. This indicated that several aspects of the licensee's SCWE program were working, and that the reach of their SCWE program had positively affected groups other than portable nuclear gauge users.

The licensee had developed several means to communicate its SCWE program to the workforce. Specifically, the licensee developed posters that described ADOT & PF's SCWE program, provided their SCWE policy statement, and provided important contact information for the SCWE program, as well as the contact information for NRC's Safety Concerns Hotline. The inspector observed these postings at several different licensee offices and locations of portable nuclear gauge storage. Additionally, at the beginning of the 2005 and 2006 construction seasons, the licensee distributed a SCWE newsletter. The intended audience of the newsletter was portable nuclear gauge users. The newsletter served to increase awareness of ADOT & PF's SCWE program and provide

updates to items of interest related to portable nuclear gauges. At the time of the inspection, the licensee was in the process of finalizing its 2007 construction season SCWE newsletter.

Based on the findings of this inspection as well as NRC Inspection Report 030-07710/2004-002 dated January 25, 2005, and NRC Inspection Report 030-07710/2005-001 dated September 2, 2005, the NRC has determined that the requirements of NRC's March 15, 2004, Order have been satisfactorily met.

3.3 Conclusions

In accordance with License Condition 21 of License No. 50-14102-01, ADOT & PF was found to be implementing and maintaining a plan for maintaining a SCWE. Based on the licensee's corrective actions, a previously issued violation of NRC's March 15, 2004, Order, regarding the failure to ensure that the 2005 refresher training was conducted by individuals independent of ADOT & PF who met the conditions specified the Order, is considered closed. Additionally, based on the findings of this inspection and two previous NRC inspections, the NRC has determined that the requirements of the Order have been satisfactorily met.

4 **Exit Meeting Summary (87124)**

The preliminary inspection findings were discussed with the licensee's Deputy Commissioner of Highways & Public Facilities, Chief Engineer, Statewide Materials Engineer, and Statewide Radiation Safety Officer at the conclusion of the onsite inspection. A final exit meeting to review the findings as presented in this report was conducted telephonically with the licensee's Statewide Materials Engineer and Statewide RSO on August 6, 2007.

SUPPLEMENTAL INSPECTION INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

John MacKinnon, Deputy Commissioner, Highways & Public Facilities
Gary Hogins, Chief Engineer
Michael San Angelo, Statewide Materials Engineer
Greg Christensen, Statewide Radiation Safety Officer
Dan Monteleone, Statewide Safety Officer
Patrick Wittrock, Central Region Construction Engineer
Jeanne Dirks, Central Region Radiation Safety Officer

INSPECTION PROCEDURES USED

87124 Fixed and Portable Gauge Programs

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Closed

030-07710/2005-001 VIO	Failure to ensure that the refresher training conducted in calendar year 2005 was conducted by individual(s) independent of ADOT&PF who met 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]
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)].

Discussed
None.

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
ADOT & PF	State of Alaska Department of Transportation & Public Facilities
CFR	Code of Federal Regulations
NMED	Nuclear Materials Events Database
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer
SCWE	Safety Conscious Work Environment
SSO	Statewide Safety Officer
VIO	Violation