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

April 28, 2005

EA-05-064

Mr. Bill R. Fraser
President/Radiation Safety Officer
High Mountain Inspection Service, Inc.
P.O. Box 1508
Mills, Wyoming 82644

SUBJECT: NRC INSPECTION REPORT 030-33887/04-002

Dear Mr. Fraser:

This refers to the inspection conducted on November 4, 2004, at a temporary jobsite location in Cheyenne, Wyoming. The inspection was an examination of activities conducted under Byproduct Materials License 49-26808-02 as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of the license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with licensee personnel. The preliminary inspection findings were discussed with Gary Franklin of your staff at the conclusion of the onsite portion of the inspection. The results of the inspection were discussed with you during a final telephonic exit briefing on April 4, 2005.

Based on the results of the inspection and investigation, one apparent violation was identified and is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy (Enclosure 3). The apparent violation involved a combined failure to comply with 10 CFR 34.41(a) and 10 CFR 34.47(a). Specifically it appears that your staff failed to conduct radiographic operations with a radiographer accompanied by at least one other individual (radiographer's assistant) who has at a minimum met the requirements of 10 CFR 34.43(c). Additionally, because the radiographer's assistant had not been expected to enter the restricted area, he had not been provided with an alarming rate meter and other required dosimetry as required by 10 CFR 34.47(a).

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for these inspection findings at this time. In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection report (Enclosure 1) may change as a result of further NRC review.

As discussed with you on April 27, 2005, please contact Mr. Jeffrey Cruz at (817) 860-8287 as soon as possible to schedule a closed telephonic predecisional enforcement conference to discuss the apparent violation. A proposed agenda for the conference is enclosed. (Enclosure 2)

The decision to hold a predecisional enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference is being held to obtain information to assist the NRC in making an enforcement decision. This may include information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation, and information related to any corrective actions taken or planned. The conference will afford an opportunity for you to provide your perspective on these matters and any other information that you believe the NRC should take into consideration in making an enforcement decision. In presenting your corrective action, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violations. The guidance in the enclosed excerpt from NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," may be helpful. (Enclosure 4)

You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding these apparent violations is required at this time.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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.

Sincerely,

/RA/

Charles L. Cain, Acting Director
Division of Nuclear Materials Safety

Docket No.: 030-33887
License No.: 49-26808-02

Enclosures:
1. NRC Inspection Report
   030-33887/04-002
2. Predecisional Enforcement Conference Agenda
3. NRC Enforcement Policy, NUREG-1600
4. NRC Information Notice 96-28

cc w/Enclosures 1 & 2:
Wyoming Radiation Control Program Director

bcc w/Enclosures 1& 2 (via ADAMS distrib):
BSMallett
CLCain
JEWhitten
JCruz
KSFuller
GFSanborn
HAFreeman
WAMaier
RRErickson
SLMerchant
GMLongo, OGC
FJCongel, OE
DRStarkey, OE
GKMorell, OE
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ENCLOSURE 1

U.S. Nuclear Regulatory Commission
Region IV

Docket No.:	030-33887
License No.:	49-26808-02
Report No.:	030-33887/04-002
EA No.:	05-064
Licensee:	High Mountain Inspection Service, Inc.
Facility:	High Mountain Inspection Service, Inc. and a temporary jobsite
Location:	Mills and Cheyenne, Wyoming
Dates:	November 4, 2004, through April 4, 2005
Inspector:	Randy R. Erickson, Health Physicist Nuclear Materials Inspection Branch
Approved By:	Jack E. Whitten Chief Nuclear Materials Licensing Branch
Attachment:	Supplemental Inspection Information

EXECUTIVE SUMMARY

High Mountain Inspection Service, Inc. (High Mountain)
NRC Inspection Report 030-33887/04-002

This was a routine, unannounced inspection of licensed activities involving the use of byproduct material for industrial radiography operations at a temporary jobsite in areas of NRC jurisdiction. Although the inspector did not observe use of radiographic exposure devices, the inspector did review equipment and records at the jobsite and interviewed personnel who had been engaged in radiographic work before the inspector's arrival. Specifically, the inspector entered into discussions with licensee personnel involving the training of radiographers and radiographer's assistants.

Program Overview

High Mountain is authorized under NRC License 49-26808-02 to use iridium-192 in industrial radiographic exposure devices to perform non-destructive testing at temporary jobsite locations in areas of NRC jurisdiction. Industrial radiography work was dispatched from High Mountain's authorized storage locations in Casper, Evanston and Gillette, Wyoming. At the time of the inspection, the licensee employed approximately 60 personnel involved in radiographic operations.

Inspection Findings

- The licensee failed to perform industrial radiography at temporary jobsites with a radiographer and at least one other qualified radiographer or assistant. This was identified as an apparent violation of 10 CFR 34.41(a) (Section 2).

Corrective Actions

- On April 4, 2005, the licensee was contacted telephonically and notified of the results of the inspection. The company president indicated that he disagreed with the NRC findings and when asked offered no corrective actions at that time.

Report Details

1 Program Overview (87121)

1.1 Inspection Scope

The inspector reviewed the license application, supporting documents, and other records provided by the licensee. Collectively, these documents describe the licensee's radiation safety program. The inspector also interviewed licensee personnel.

1.2 Observations and Findings

High Mountain Inspection Service, Inc., (High Mountain) is authorized under NRC License 49-26808-02 to use iridium-192 in industrial radiography exposure devices to perform non-destructive testing at temporary jobsite locations in areas of NRC jurisdiction. Industrial radiography work was dispatched from High Mountain's authorized storage locations in Casper, Evanston and Gillette, Wyoming. At the time of the inspection, the licensee employed approximately 60 personnel involved in radiographic operations.

2 Inspection Findings

2.1 Inspection Scope

This was a routine, unannounced inspection of licensed activities involving the use of byproduct material for industrial radiography operations at a temporary jobsite in areas of NRC jurisdiction. Although the inspector did not observe use of radiographic exposure devices, the inspector did review equipment and records at the jobsite and interviewed personnel who had been engaged in radiographic work before the inspector's arrival. Specifically, the inspector entered into discussions with licensee personnel involving the training of radiographers and radiographer's assistants.

2.2 Observations and Findings

NRC regulation 10 CFR 34.41(a) requires, in part, that whenever industrial radiography is performed at a location other than a permanent radiographic installation, the radiographer must be accompanied by at least one other qualified radiographer or individual who has met the minimum training requirements specified in 10 CFR 34.43(c).

On November 4, 2004, while conducting a routine byproduct material inspection at a refinery in Cheyenne, Wyoming, an NRC inspector determined through interviews with refinery staff that routine industrial radiography had just concluded on site. The inspector elected to perform a temporary jobsite inspection of the industrial radiography licensee. The inspector located the radiography truck outside the refinery inspection office where the industrial radiography crew was located. Refinery staff, at the request of the inspector, went inside the office and retrieved the radiographer (Individual A) for the NRC inspection. The inspector, upon interviewing Individual A, confirmed that he

was a certified radiographer holding a North Dakota radiographer certification. The inspector also confirmed that the industrial radiography crew had just concluded one exposure on a 4-inch pipe. Individual A stated that while making industrial radiography exposures he had worn his alarming rate meter, pocket dosimeter, and personnel monitoring equipment. At the request of the inspector, Individual A provided each of these items to the inspector for examination. The industrial radiography exposure device (camera) used for taking the exposure was found secured in the rear of the vehicle inside a properly labeled over-pack container. The radiography camera was a SPEC Model 150, S/N: 0725, containing approximately 63 curies of iridium-192.

The inspector asked Individual A if he could speak with the designated radiographer's assistant. Individual A stated that High Mountain had trained one of the refinery's safety inspectors (Individual B) to function as the second qualified individual on a two man radiography crew for those instances when a second High Mountain individual (radiographer or radiographer's assistant) was unavailable. Individual A went on to state that his previously trained radiographer's assistant (Individual C) had abruptly terminated employment on the previous day.

The inspector interviewed Individual B who stated that on some date prior to July 14, 2004, Individual A had approached him and asked if he (Individual B) would consider being trained as a radiographer's assistant. Individual B agreed to Individual A's request, and on July 14, 2004, began training at the refinery location. Individual B stated that Individual A had reviewed a manual and a book with him, although he was unable to remember what the manual and book were entitled. Individual B stated that Individual A had explained the safety equipment and the camera to him, demonstrated how the camera and associated equipment connected, demonstrated how the survey instrument functioned, and demonstrated how to use a dosimeter and how to properly place films. Individual B stated that during this training, no radiographic exposures were made with the camera. Also, at no time did Individual A have Individual B physically use the equipment to demonstrate Individual B's competency in the proper use and safe handling of the industrial radiography equipment in accordance with 10 CFR 34.43(c)(2). Individual B explained to the inspector that Individual A had clearly informed him that his expected role was only to stand at the boundary of the radiation area and maintain constant surveillance, and that Individual A would always make all the radiography exposures and conduct all radiographic operations. Individual B added that Individual A described him as a "helper" only. Individual B stated that he had not been provided with copies of any NRC requirements or the High Mountain operating and emergency procedures.

Individual B stated that at approximately 1:30 p.m., on July 14, 2004, following completion of his radiography training, the High Mountain corporate office faxed the radiographer's assistant test to Individual A who in turn administered the test to Individual B. Individual B stated that he had finished the test at approximately 4:00 p.m. on that same day, and the test was then faxed back to High Mountain. When questioned by inspector as to his successful completion of the radiographer's assistant test, Individual B stated that as of the date of the inspection on November 4, 2004, High Mountain had not informed him of the results of the test that was taken on July 14, 2004. The test results for Individual B were subsequently provided to the NRC on

November 16, 2004. Test results indicated that Individual B had received a passing score of 90 percent.

Individual B stated that on July 16, 2004, he assisted Individual A as part of the required two person team when performing radiographic exposures at the refinery. Individual B stated that he had observed Individual A make four radiographic exposures, each approximately 1-minute in duration, as he stood just outside the radiation area boundary maintaining constant visual surveillance of the area. Individual B indicated to the inspector that he once again assisted Individual A with a single exposure at the refinery on November 4, 2004. In this instance he also stood just outside the radiation area boundary maintaining constant surveillance of the area. When questioned by the inspector about dosimetry, Individual B stated that during both industrial radiography jobs, High Mountain had not provided him with an alarming rate meter, pocket dosimeter, and either a film badge or thermoluminescent dosimeter (TLD). Individual B stated that he was unaware that he needed the safety equipment since he was only there to watch the perimeter of the radiation area boundary. Individual B also indicated to the inspector that Individual A had informed him that if he remained outside the radiation area boundary he would not need the alarming rate meter, pocket dosimeter, and either a film badge or TLD. The inspector questioned Individual B to determine if he was observing both the perimeter of the radiation area and Individual A. Individual B confirmed he observed both. The inspector also questioned Individual B as to his actions should Individual A become incapacitated. Individual B stated that in such a case he would call for help.

Individual A indicated that on July 14, 2004, the licensee in an effort to meet the training requirements for Individual B, directed Individual A to provide 10 CFR 34.43(c) training to Individual B. This training was conducted by the licensee with the expectation that Individual B would not be considered a radiographer's assistant, but instead would satisfy the requirements of a second qualified individual required for radiographic operations. Individual B was only to remain outside the boundaries of the radiation area, and maintain constant surveillance to keep other individuals out of the radiation area. To accomplish this training, the licensee provided didactic instruction to Individual B, but the training did not meet the requirements of 10 CFR 34.43(c)(2) because, based on interviews of Individual B, he had not developed competence to use, under the personal supervision of the radiographer, the radiographic exposure device, sealed sources, associated equipment and radiation survey instruments. Individual A also indicated that Individual B was not expected to enter the radiation area boundary, use the radiographic exposure device, or render aid if Individual A were to become incapacitated. Because the licensee never expected Individual B to enter the radiation area, the licensee incorrectly concluded that Individual B was not required to wear an alarming rate meter, pocket dosimeter, and either a film badge or TLD during radiographic operations (10 CFR 34.47).

The failure to assure that radiographic operations were performed by a radiographer accompanied by at least one other qualified radiographer or an individual who met the requirements of 10 CFR 34.43(c) was identified as an apparent violation of 10 CFR 34.41(a). In addition, while the radiographer was accompanied by another individual, the other individual was not wearing a direct reading pocket dosimeter, an operating

alarm rate meter, or either a film badge or TLD. (030-33887/004-01)

2.3 Conclusions

The inspection identified the following apparent violation of NRC requirements:

10 CFR 34.41(a) requires, in part, that whenever radiography is performed at a location other than a permanent radiographic installation, the radiographer must be accompanied by at least one other qualified radiographer or individual who has at a minimum met the requirements of 10 CFR 34.43(c).

10 CFR 34.47(a) requires, in part, that the licensee not permit any individual to act as a radiographer or radiographer's assistant unless, at all times during radiographic operations, each individual wears on the trunk of the body a direct reading pocket dosimeter, an operating alarming rate meter, and either a film badge or TLD.

On November 4, 2004, the licensee performed radiography at a temporary job site in Cheyenne, Wyoming, and the radiographer was not accompanied by at least one other qualified radiographer or individual who had at a minimum met the requirements of 10 CFR 34.43(c). In addition, while the radiographer was accompanied by another individual, the other individual was not wearing a direct reading pocket dosimeter, an operating alarm rate meter, or either a film badge or TLD.

3 Corrective Actions

On April 4, 2005, the licensee was contacted telephonically and notified of the results of the inspection. The company president indicated he was in disagreement with the findings and when asked, offered no corrective actions at that time.

4 Exit Meeting Summary

The preliminary site exit briefing was conducted on November 4, 2004. A final telephonic exit briefing was conducted with the company president on April 4, 2005. No proprietary information was identified.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Bill Fraser, President / Radiation Safety Officer
Gary “Chris” Franklin, Radiographer

INSPECTION PROCEDURES USED

87121	Industrial Radiography Programs
83822	Radiation Protection

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

030-33887/004-01	APV	An apparent violation involving the licensee’s failure to perform radiography at a location other than a permanent radiographic installation, without being accompanied by at least one other qualified radiographer or assistant was identified as an apparent violation of 10 CFR 34.41(a).

LIST OF ACRONYMS USED

APV	Apparent Violation
CFR	Code of Federal Regulations
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer

ENCLOSURE 2

PROPOSED PREDECISIONAL ENFORCEMENT CONFERENCE AGENDA

TELECONFERENCE WITH QUALITY TESTING & INSPECTION

MAY 2005

1. INTRODUCTIONS/OPENING REMARKS - CHARLES CAIN, NRC
2. ENFORCEMENT PROCESS - GARY SANBORN, NRC
3. APPARENT VIOLATIONS & REGULATORY CONCERNS - JACK WHITTEN, NRC
4. LICENSEE AND INDIVIDUAL PRESENTATIONS
5. BREAK - 10 MINUTES
6. RESUMPTION OF CONFERENCE
7. CLOSING REMARKS - HIGH MOUNTAIN INSPECTION SERVICE, INC.
8. CLOSING REMARKS - CHARLES CAIN, NRC