

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE ADMINISTRATIVE LAW JUDGE IVAN W. SMITH

In the Matter of
REICH GEO-PHYSICAL, INC.
1019 Arlington Drive
Billings, Montana 59101

)
) License No. 25-18304-01

)
) Docket No. 30-14821
) [ASLBP 85-508-01-0T]
) EA 84-78

NRC'S STAFF'S BRIEF, PROPOSED FINDINGS OF FACT
AND CONCLUSIONS OF LAW IN THE FORM OF A
PROPOSED MEMORANDUM AND ORDER

Lillian M. Cuoco
Stephen G. Burns
Counsel for NRC Staff

August 30, 1985

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OFFICE OF SECRETARY
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WASHINGTON, D.C. 20545

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BEFORE ADMINISTRATIVE LAW JUDGE IVAN W. SMITH

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

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) Docket No. 30-14821
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NRC STAFF'S BRIEF, PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW IN THE FORM OF A PROPOSED MEMORANDUM AND ORDER

I. JURISDICTION AND PROCEDURAL HISTORY

1. On June 20, 1984, an inspector from the Region IV office of the Nuclear Regulatory Commission (NRC) conducted an inspection of Reich Geo-Physical, Inc. (the Licensee) at its Billings, Montana office, of activities authorized by NRC Byproduct Material License No. 25-18304-01. As a result of the inspection, the Regional Administrator for NRC Region IV issued on August 22, 1984, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of \$1600.00. On September 8, 1984, the Licensee responded to the Notice and opposed the imposition of the proposed civil penalty (Response). Thereafter, on October 31, 1984, the Director of the Office of Inspection and Enforcement issued an Order Imposing Civil Monetary Penalty in the amount of \$1600.00. 49 Fed. Reg. 44253 (Nov. 5, 1984). The Licensee requested a hearing on the Director's order and, accordingly, the Commission ordered on March 8, 1985, that this matter be heard by an Administrative Law Judge. On March 12, 1985, I was designated as the presiding officer in this matter. 50 Fed. Reg. 10563 (Mar. 15, 1985).

2. During a telephone conference among myself and the parties on May 20, 1985, I established a schedule for discovery and the filing of written testimony by the NRC Staff. On the motion of the NRC Staff, I authorized in a Memorandum and Order dated June 13, 1985, an extension of time for the completion of discovery. Further telephone conferences were held among myself and the parties on June 17 and July 2, 1985. On the application of the NRC Staff, I issued a subpoena duces tecum to compel the production of the Licensee's original utilization logs for the use of radioactive material.

3. Pursuant to my Order of May 30, 1985, a hearing was held in the Federal Building in Billings, Montana on July 24, 1985. Prior to the commencement of the hearing, Keith A. Reich, President of Reich Geo-Physical, produced the records sought by the NRC Staff under subpoena. In view of the limited number of participants and the fact that Reich Geo-Physical was represented by Mr. Reich rather than by counsel, I encouraged the parties to be as informal as possible during the hearing, so as to ensure full development of the evidence and adequate opportunity for cross examination. See Transcript (Tr.) 51.

4. As part of its direct case, the NRC Staff offered into evidence a number of documentary exhibits. Staff Exhibits 1 and 2 consisted of pages from the Licensee's utilization logs which Mr. Reich had produced in response to the subpoena. Staff Exhibit 3 was an affidavit of Barbara L. Kay, an employee of the NRC's Region IV office in Arlington, Texas, who is a custodian of records for the docket files kept on certain byproduct material licensees in the regional office. Attached to Ms. Kay's affidavit were 11 documents which she certified to be true copies of documents maintained in the official file for Reich Geo-Physical. The documents attached to the

affidavit included Reich Geo-Physical's license, 1/ the enforcement correspondence that led to this hearing, and earlier correspondence between the NRC Staff and Reich Geo-Physical concerning the results of a 1981 inspection and the company's use of an americium source. 2/ Mr. Reich did

1/ This license was issued on March 1, 1979 and was due to expire on March 31, 1984. See Staff Exhibit 3, Attachment 1 at 1. However, the license continued in effect owing to the filing of a timely application for renewal by the Licensee. See Tr. 230-33; 10 CFR § 2.109.

2/ The attachments to Staff Exhibit 3 are as follows:

Attachment 1: NRC License No. 25-18304-01 issued March 1, 1979.

Attachment 2: License Application of Reich Geo-Physical, Inc. dated August 8, 1978.

Attachment 3: Letter from Reich Geo-Physical, Inc., to Joseph M. Brown, Jr., License Management Branch, Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety and Safeguards, NRC, dated January 30, 1979.

Attachment 4: Letter and Notice of Violation issued to Reich Geo-Physical, Inc., dated May 18, 1981.

Attachment 5: Letter from Karl V. Seyfrit, NRC Region IV Director to Reich Geo-Physical, Inc., dated May 21, 1981.

Attachment 6: Letter from Keith A. Reich, Reich Geo-Physical, Inc., to D.B. Spitzberg, NRC Region IV, dated August 11, 1981 (executed August 19, 1981).

Attachment 7: Form NRC-241, "Report of Proposed Activities in Non-Agreement States" submitted to NRC Region IV by Reich Geo-Physical, Inc., dated June 12, 1981.

Attachment 8: Letter from Glen D. Brown, Chief, Technical Inspection Branch, NRC Region IV to Reich Geo-Physical, Inc., dated June 25, 1981.

Attachment 9: Letter, Notice of Violation and Proposed Imposition of Civil Penalty, Inc., issued to Reich Geo-Physical, Inc., dated August 22, 1984.

Attachment 10: Response of Reich Geo-Physical, Inc., to Notice of Vio-

(FOOTNOTE CONTINUED ON NEXT PAGE)

not object to the admission of these exhibits, and I received them into evidence.

5. Two members of the NRC Staff testified at the hearing. Mr. Charles A. Hooker, who conducted the inspection of Reich Geo-Physical on June 20, 1984, testified concerning his observations during the inspection. He adopted his written testimony and sponsored the official NRC report of his inspection. Mr. Edwin D. Flack, a senior enforcement specialist in the Office of Inspection and Enforcement, also adopted his written testimony and testified as to matters concerning the safety significance of the violations with which the Licensee was charged and the application of the Commission's enforcement policy, 10 CFR Part 2, Appendix C, to the case.

6. Mr. Reich testified on behalf of the Licensee. In keeping with the informal procedure I had set for the hearing, Mr. Reich was put under oath and permitted to testify during his examination of the NRC Staff's witnesses. See Tr. 90. Mr. Reich offered one documentary exhibit into evidence, a copy of a letter dated May 13, 1985, from the state of North Dakota to Reich Geo-Physical concerning an inspection of the company's activities under North Dakota Agreement State License No. 33-09909-01. The NRC Staff offered two additional exhibits in rebuttal: a June 28, 1982 letter (Staff Exhibit 4) and an October 5, 1984 letter (Staff Exhibit 5), both from the state of North Dakota to Reich Geo-Physical concerning the same agreement state license.

(FOOTNOTE CONTINUED FROM PREVIOUS PAGE)

lation and Proposed Imposition of Civil Penalty, dated September 8, 1984.

Attachment 11: Letter, Order Imposing Civil Monetary Penalty and Appendix issued to Reich Geo-Physical, Inc., dated October 31, 1984.

7. Witnesses for the NRC Staff were subject to examination by Mr. Reich and myself, and Mr. Reich was subject to examination by the NRC Staff and myself concerning his testimony. At the close of evidence, I set a schedule for the filing of findings and replies by the parties, which was further modified by my Order of August 20, 1985 and a telephone conference among the parties and myself on August 28, 1985.

8. In reaching my decision, I am mindful that this is a civil penalty proceeding brought pursuant to 10 CFR § 2.205 of the Commission's regulations. As such, the action I may take is limited to imposing, mitigating or remitting the civil penalty imposed by the Director's Order of October 31, 1984. See 10 CFR § 2.205(f) (1985). In this regard, I note that the NRC Staff, as the proponent of the Director's order, bears the burden of proof in this proceeding. See 10 CFR § 2.732 (1985). The NRC Staff must prove, by a preponderance of the reliable, probative and substantial evidence, that the alleged violations occurred and that a civil penalty is warranted. See Radiation Technology, Inc., ALAB-567, 10 NRC 533, 536 (1979). Upon examination of the evidentiary record and the filings submitted by the NRC Staff and the Licensee, I find that the Staff has sustained its burden of proof on both counts. Accordingly, for the reasons stated below, the Director's order imposing a civil penalty in the amount of \$1600.00 against Reich Geo-Physical, Inc., is affirmed.

II. THE LICENSEE VIOLATED NRC REQUIREMENTS AS STATED IN THE NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY

- A. The Licensee Possessed and Used Two Americium-241 Sealed Sources Not Authorized By Its NRC License Between April 14, 1981 and June 20, 1984

Statement of the Violation

9. Violation 1 as described in the Notice charges that:

License Condition 6, 7, 8, and 9 authorize only the possession of one 125-millicurie cesium-137 sealed source for use in well-logging.

Contrary to this limitation, the licensee also possessed ~~two~~ sealed sources of americium-241. Specifically, one source of 15.5 millicuries and one source of 25 millicuries had been possessed and used by the licensee during the period April 14, 1981, to June 20, 1984.

(This is a repeat violation.)

Staff Exhibit 3, Attachment 9 at 3.

Findings of Fact

10. Reich Geo-Physical's license only authorized the possession and use of one cesium-137 sealed source. Staff Exhibit 3, Attachment 1 at 1.

However, two sealed radioactive sources of americium-241, serial number B-351 containing 15.5 millicuries, and serial number B-085 containing 25 millicuries of material, were observed by Mr. Hooker inside the Licensee's logging vehicles during the inspection. Hooker Testimony at 10 (following Tr. 75).

The Licensee's utilization logs show that these particular sources were used by the Licensee to conduct well-logging activities in the states of Montana, Wyoming and Utah in 1981, Montana and Wyoming in 1982, and Montana in 1983.

See generally Staff Exhibits 1 & 2.

11. I note there is no factual dispute between the parties with respect to either unauthorized possession or unauthorized use of the americium sources in either 1982, 1983 or 1984. When not in use at temporary job sites, the americium sources were stored in the Licensee's logging vehicles

at 1019 Arlington Drive, Billings, Montana. Tr. 219, 228 (Testimony of Keith A. Reich). There was no NRC authorization 3/ to possess the americium sources at that address in 1982, 1983 or 1984; thus, the possession of the sources in Billings during those years violated the Reich Geo-Physical license. See Tr. 203-04 (Testimony of Edwin D. Flack, Testimony of Keith A. Reich). In addition, the 36 days of well-logging activities conducted by the Licensee in the states of Montana and Wyoming in 1982 and 1983 were not authorized by the NRC and were admitted by the Licensee to constitute "illegal use" of radioactive material. 4/ Staff Exhibit 3, Attachment 10 at 1; see also Tr. 135 (Testimony of Charles A. Hooker). There is even agreement between the parties that the Licensee engaged in the unauthorized use of americium for 29 days in Utah in 1981. See Tr. 131 (Testimony of Charles A. Hooker, Testimony of Keith A. Reich); Staff Exhibit 1. 5/ The

3/ The Licensee failed to submit any NRC-241 forms during these years, or otherwise seek authorization to use the material in NRC-regulated jurisdictions in accordance with 10 CFR § 150.20(b). See discussion, infra.

4/ The unauthorized use of the americium sources was as follows:

In 1982, the 15.5 millicurie source was used for 10 consecutive days, May 10th through May 20th in Rock Springs, Wyoming; on May 24th in Laurel, Montana; and 4 consecutive days, May 25th through May 28th in Rock Springs, Wyoming. Staff Exhibit 1. The same source was again used for 9 consecutive days, May 29th through June 6th in Rock Springs, Wyoming; and July 2nd and July 14th in Lewistown, Montana. Staff Exhibit 2. The 25 millicurie source was used on August 4th and 5th, and for 7 consecutive days August 10th through August 16th in Kemmerer, Wyoming. Staff Exhibit 2.

In 1983, the 15.5 millicurie source was used on November 18th in Colstrip, Montana. Staff Exhibit 2.

5/ According to the Licensee's utilization logs, the 25 millicurie source was used in Emery, Utah on August 25th; for 5 days, August 28th

foregoing facts are in themselves sufficient to establish that the Licensee violated the limitations of its license.

12. Americium sources were also used in 1981 in the states of Wyoming and Montana. 6/ The dispute between the parties concerns whether this usage violated the Reich Geo-Physical License. Simply stated, the Licensee argued that its use of americium in Montana and Wyoming in 1981 was authorized by the NRC.

13. In 1981, the Licensee held, and continues to hold, an agreement state license from North Dakota for the possession and use of the americium

(FOOTNOTE CONTINUED FROM PREVIOUS PAGE)

through September 2nd; for 4 days, September 9th through September 14th; September 15th and 16th; for 8 days, September 22nd through September 30th; for 4 days, October 6th through October 10th; and for 5 consecutive days, October 18 through October 22, 1981. Staff Exhibit 1.

6/ According to the utilization logs, the Licensee used its 15.5 millicurie americium-241 sealed source to conduct activities in Wright, Wyoming on the following dates in 1981: August 5th, 7th, 8th, 11th and 12th; for 9 consecutive days, August 18th through August 26th, for 7 consecutive days, September 2nd through September 8th; September 14th; for 4 days, September 16th through September 22nd; September 23rd; for 9 days, September 30th through October 8th; October 15th; October 20th, 21st, 22nd, and 23rd; October 30th and October 31st; and November 4, 1981. This same source was also used to conduct activities in Decker, Montana on September 26, 1981. Staff Exhibit 1.

The utilization logs also show that the 25 millicurie americium-241 sealed source was used by the Licensee to conduct activities in Tongue R. [Tongue River], Montana, for 5 consecutive days, July 30th through August 3, 1981; and in Decker, Montana, on August 11, 12, 13, 16 and 20, 1981. Staff Exhibit 1. In addition, the 25 millicurie source was used by the Licensee on October 27th, 28th and 29th; and for 9 consecutive days, November 3 through 11, 1981 in Rawlins, Wyoming. Staff Exhibit 1.

sources at issue. 7/ See Tr. 218, 224 (Testimony of Keith A. Reich). As the holder of an agreement state license, Reich Geo-Physical was able to seek NRC approval for use of the americium sources in NRC-regulated jurisdictions. 8/ 10 CFR § 150.20 grants to any person who holds an agreement state license for use of radioactive material a general license to conduct for a limited period those activities authorized under its agreement state license in jurisdictions where the NRC regulates the use of radioactive material. The general license is granted for a time period not to exceed 180 days for any given calendar year. 10 CFR § 150.20(b)(3) (1985). However, prior to conducting activities, an agreement state licensee must either file a Form NRC-241 with the Administrator of the NRC region in which the agreement state that issued the license is located at least three days prior to engaging in activities, or must obtain telephone approval from NRC to conduct activities, followed by the submittal of a Form NRC-241 within three days. See 10 CFR § 150.20(b)(1) (1985). The parties agree that the Licensee filed a NRC Form-241 with NRC Region IV in June 1981. See Staff Exhibit 3, Attachment 7. 9/ The dispute between the parties concerns the interpretation to be given to the section of the form listing the location of authorized activities.

7/ Section 274b of the Atomic Energy Act of 1954, as amended, authorizes the Commission to enter into agreements permitting states to assume the regulation of, among other things, byproduct material. 42 U.S.C. § 2021b. The Commission's regulations pertaining to agreement states are contained in 10 CFR Part 150. The State of North Dakota is an agreement state.

8/ As of June 20, 1984, the states of Montana, Wyoming and Utah were not agreement states.

9/ NRC Region IV acknowledged the Form NRC-241 on June 25, 1981. See Staff Exhibit 3, Attachment 8.

14. The Licensee raised two principal points with respect to the Form NRC-241. In the first instance, the Licensee argued that the effect of filing the form was to extend its specific NRC byproduct material license to include the americium-241 sources. Inasmuch as NRC License No. 25-18304-01 permitted the Licensee to use cesium-137 at temporary job sites in Montana and Wyoming, the Licensee argued that it was authorized to use the americium-241 sources anywhere in the same states. Tr. 88-91, Tr. 221, 224, (Testimony of Keith A. Reich). Under the Licensee's interpretation, Reich Geo-Physical would not have violated its NRC license when americium was used in Montana and Wyoming in 1981. Second, the Licensee argued that the nature of its business--energy exploration--is such that it has very short notice as to where a job site will be, thereby making it difficult for the Licensee to file a Form NRC-241 with Region IV. Tr. 197, 212-13 (Testimony of Keith A. Reich). The Licensee also asserted that the Staff should have been aware that well-logging would not be conducted at 1019 Arlington Drive, Billings, Montana, the address indicated on the Form NRC-241. Tr. 86-88 (Testimony of Keith A. Reich); see Staff Exhibit 3, Attachment 7.

15. The Licensee's understanding of the legal effect of a Form NRC-241 is in error. In promulgating 10 CFR § 150.20, the NRC established a procedure for recognizing valid agreement state licenses in NRC jurisdictions. See 27 Fed. Reg. 1351 (Feb. 14, 1962); 35 Fed. Reg. 7725 (May 20, 1970). Agreement state licensees working in an NRC-regulated jurisdiction are required to "comply with all terms and conditions of the specific license issued by [the] Agreement State" except those contrary to the requirements of 10 CFR § 150.20. See 10 CFR § 150.20(b)(4) (1985). The requirement to file Form NRC-241 is intended to ensure that NRC has adequate notice as to the

extent of activities to be performed in NRC-regulated jurisdictions under the auspices of an agreement state license. Thus, it is not the case, as the Licensee argued, that the Form NRC-241 "extended" its specific NRC license to include americium sources at any unspecified location.

16. I recognize that there is some conflict in the Staff's testimony with respect to the locations where the use of americium was authorized in 1981. Mr. Hooker testified that approval of the Form NRC-241 authorized the Licensee to conduct activities under its North Dakota license in Montana, even though a specific address was listed on the Form NRC-241. Tr. 86-87, 92-93; Hooker Testimony at 6-7 (following Tr. 75); see also Flack Testimony at 15 (following Tr. 144). However, at hearing Mr. Flack testified that the Staff would expect that each location where the Licensee planned to use the sources be listed on the Form NRC-241. Tr. 196-97. Under this interpretation, the only location where the americium sources specified on the Form NRC-241 could have been used in 1981 was at 1019 Arlington Drive, Billings, Montana. See Staff Exhibit 3, Attachment 7.

17. To interpret the Form NRC-241 at issue, I first look to the instructions on the form itself. I note that these instructions are quite specific with respect to the information which is to be provided. Item 5 of the form instructed the Licensee to provide the "[l]ocations at which these activities will be conducted and dates scheduled" including the "street and number or other location" with "as complete an address as possible." Staff Exhibit 3, Attachment 7. It certainly would not have been unreasonable for the Staff to have interpreted the Form NRC-241 as merely a request for authorization to store radioactive material at 1019 Arlington Drive. Only a few weeks prior to submittal of the Form NRC-241, the Licensee received a Notice of Violation from the NRC for the unauthorized possession of a 15.5

millicurie americium-241 sealed source. See Staff Exhibit 3, Attachment 4. A letter from the NRC Region IV Director several days later enclosed NRC-241 forms and indicated to the Licensee that authorization for the americium source could be obtained by submitting a completed form three days prior to continuing use. See Staff Exhibit 3, Attachment 5.

18. After considering all of the testimony presented on this issue, Mr. Flack's testimony at the hearing is most consistent with the requirements of 10 CFR § 150.20 and the instructions on the Form NRC-241 itself. I find that the Form NRC-241 limited the location of the Licensee's possession and use of two 15.5 millicurie americium-241 sources to 1019 Arlington Drive, Billings, Montana. 10/ Therefore, the use of americium during 1981 at locations other than at this address in Billings violated the license. 11/

19. In sum, the reliable, probative and substantial evidence supports the finding that Reich Geo-Physical, Inc., violated conditions 6, 7, 8 and 9 of NRC License No. 25-18304-01.

B. The Licensee Permitted Radioactive Material To Be Used By
Individuals Not Authorized To Use Material By Its NRC License

Statement of the Violation

20. Violation 2 as described in the Notice charges that:

10/ I note that the Licensee possesses one 15.5 millicurie americium source and one 25 millicurie americium source. However, the Form NRC-241 submitted by the Licensee in 1981 sought authorization for "2 Americium 241 sealed sources 15.5 mCi." Staff Exhibit 3, Attachment 7 at item 6. The Licensee presented no evidence at hearing which would cause me to interpret this aspect of the form in any other manner. Thus, even under the Licensee's interpretation of the Form NRC-241, the Licensee was not authorized to use the 25 millicurie source in Montana or Wyoming in 1981.

11/ Even if I were to accept the Licensee's argument that use of the americium in 1981 in Montana and Wyoming was authorized, I would conclude that there were sufficient instances of unauthorized use of radioactive material in Utah in 1981, in Montana and Wyoming in 1982 and in Montana in 1983 to support the violation.

License Condition 12 states that licensed materials shall be used by, or under the supervision and in the physical presence of, a specific individual named in the license.

Contrary to this requirement, during the period of August 17, 1981 to August 14, 1982 licensed material had been used by, or had been under the supervision of, individuals who were not named on the license.

Staff Exhibit 3, Attachment 9 at 3.

Findings of Fact

21. There is no dispute between the parties regarding Violation 2. The license names Keith A. Reich as the only authorized user of licensed material. Staff Exhibit 3, Attachment 1. Mr. Hooker testified that, from his review during the inspection of the Licensee's utilization logs, he determined that the 15.5 millicurie americium-241 source possessed by the Licensee had been used between the dates August 12 and November 4, 1981 in Wyoming and Montana by an individual named J. Jarocki, and that one of the two americium sources possessed by the Licensee had been used by an individual named Terry Dowling between the dates August 10 and August 14, 1982 in Kemmerer, Wyoming. Hooker Testimony at 14 (following Tr. 75). Mr. Hooker also testified that Mr. Reich said during the inspection that he was not physically present when Mr. Dowling and Mr. Jarocki used the americium sources. Hooker Testimony at 15 (following Tr. 75).

22. The Licensee's utilization logs confirm the inspector's findings with respect to the dates radioactive material was used. According to these records, J. Jarocki used the 15.5 millicurie americium-241 source for 44 days in Wright, Wyoming, between August 5 and November 4, 1981. J. Jarocki also used the same source on September 26, 1981 in Decker, Montana. Staff Exhibit 1. Terry Dowling used the 25 millicurie americium-241 source for

7 days in Kemmerer, Wyoming, between August 10 and August 16, 1982. Staff Exhibit 2.

23. The Licensee offered no evidence and provided no testimony at the hearing concerning this violation. In its Response, the Licensee admitted that unsupervised use by unauthorized persons had occurred. Staff Exhibit 3, Attachment 10 at 1.

24. In sum, I find that the reliable, probative and substantial evidence supports the conclusion that Reich Geo-Physical, Inc., violated condition 12 of NRC License No. 25-18304-01 when two individuals not named on the license used radioactive material without the physical presence and supervision of Keith A. Reich, the authorized user named on the license.

C. The Licensee Failed To Calibrate Its Survey Meters At The Intervals Required By The Its License

Statement of the Violation

25. Violation 3 as described in the Notice charges that:

License Condition 17 requires, in part, that the licensee shall possess and use licensed material described in the license in accordance with statements, representations, and procedures contained in the license application dated August 8, 1978. Item 11 of the license application states that calibration of the survey meters will be performed at 6-month intervals.

Contrary to this requirement, one survey meter had not been calibrated during the period July 27, 1982 to April 10, 1984, and a second survey meter had not been calibrated during the period April 14, 1981 to April 10, 1984.

(This is a repeat violation).

Staff Exhibit 3, Attachment 9 at 4.

Findings of Fact

26. The parties are in agreement as to the underlying facts of Violation 3. The NRC inspector, Mr. Hooker, testified that from his review of the Licensee's calibration records during the inspection, survey meter serial no. 11898 had only been calibrated once during the three-year period prior to his inspection (April 14, 1981 through June 20, 1984)--on April 10, 1984. Survey meter serial no. 8075 was only calibrated twice during the same period--on July 27, 1982 and on April 10, 1984. Hooker Testimony at 15 (following Tr. 75).

27. The Licensee's initial position on this violation, stated in its Response, was to admit that survey meters were not calibrated at six-month intervals. The Licensee attributed this failure to an effort to "cut cost." Staff Exhibit 3, Attachment 10 at 1. At the hearing, Mr. Reich asserted that the license required survey meter calibration every six months only when the meters were in use. Tr. 229, 234-35.

28. In response, the Staff indicated that under circumstances where a survey meter had not been used, and was not required for some other purpose, such as storage surveys, literal compliance with the license condition would not be required. Tr. 235-36 (Testimony of Charles A. Hooker). The Staff noted, however, that should radioactive material be put into use, the survey meter used in connection with that material was required to have been calibrated within six months prior to the date of renewed use. Tr. 235-36 (Testimony of Charles A. Hooker).

29. Notwithstanding this interpretation of the requirement at issue, it is evident that the survey meters were regularly placed in service between April 14, 1981 and June 20, 1984, but were not calibrated as required. Mr. Reich admitted that there were occasions when survey meters were used in

connection with material more than six months following the last calibration. Tr. 237. The utilization logs, which include entries of the serial number of the survey meter used in connection with a radioactive source, provide the most reliable evidence on this issue. Survey meter serial no. 11898 was used in connection with the 25 millicurie source in Montana, Wyoming and Utah in July, August, September, October and November 1981, and in connection with the 15.5 millicurie source in Wyoming and Montana in May, June and July 1982, and in November 1983 in Montana. 12/ See Staff Exhibits 1 & 2. Survey meter serial no. 11898 was not calibrated until April 10, 1984.

30. Survey meter serial no. 8075 was used in connection with the 15.5 millicurie americium-241 source in Wright, Wyoming, between August 5 and September 23, 1981; in Decker, Montana, on September 26, 1981; and in Wright, Wyoming, between September 30 and November 4, 1981. See Staff Exhibit 1. However, this meter was not calibrated until July 27, 1982. This same survey meter was used in connection with the 15.5 millicurie source in Colstrip, Montana, on November 18, 1983, well over a year following the last calibration. See Staff Exhibit 2. This meter was not calibrated again until April 10, 1984.

31. The Licensee offered no evidence which would indicate that either survey meter had been calibrated at any time during 1981. In fact, a Notice

12/ According to the utilization logs, survey meter serial no. 11898 was used in Tongue River, Montana, between July 30 and August 3, 1981; in Decker, Montana, between August 11 and 20, 1981; in Emery, Utah, between August 25 and October 22, 1981; and in Rawlins, Wyoming, between October 27 and November 11, 1981. (25 millicurie source.) Staff Exhibit 1. This same meter was used in Rock Springs, Wyoming, between May 10 and May 28, 1982; and on May 24, 1982 in Laurel, Montana. Staff Exhibit 1. Survey meter serial no. 11898 was also used in Rock Springs, Wyoming, between May 29 and June 6, 1982; in Lewistown, Montana, on July 2 and July 14, 1982; and in Colstrip, Montana, on November 18, 1983. (15.5 millicurie source.) Staff Exhibit 2.

of Violation issued to the Licensee on May 18, 1981, charged the Licensee with last calibrating its survey meters in February 1978 and March 1980. See Staff Exhibit 3, Attachment 4 at 3. Even assuming the meters had been calibrated in 1981, 13/ I find that the reliable, probative and substantial evidence supports the conclusion that the Licensee failed to have survey meters calibrated as required by NRC License No. 25-18304-01.

D. The Licensee Failed To Store Licensed Material At The Location Authorized By Its NRC License

Statement of the Violation

32. Violation 4 as described in the Notice charges that:

License Condition 10 restricts the storage of licensed material to the licensee's address at 1019 Arlington Drive, Billings, Montana.

Contrary to this requirement, on June 20, 1984, a 125 millicurie cesium-137 sealed source was being stored at a location in Billings, Montana, not authorized on the license.

Staff Exhibit 3, Attachment 9 at 4.

Findings of Fact

33. There is no factual dispute between the parties. Mr. Hooker testified that on the date of the inspection, the cesium-137 sealed source the Licensee was authorized to possess under its NRC license was not located at the Licensee's address, but that he was informed by Mr. Reich that the source was in storage in an underground bunker at the Airport Industrial Park in Billings, Montana. Hooker Testimony at 12 (following Tr. 75).

13/ The Licensee's response to the 1981 Notice of Violation, dated August 11, 1981 stated that: "Calibration of Ludlum Survey Meters will be conducted by ICN Pharmaceuticals." Staff Exhibit 3, Attachment 6. There is no evidence, however, that the Licensee actually carried out its promise to have the meters calibrated.

34. The Licensee admitted, both in its Response and under cross examination, that the cesium-137 source was not stored at the location required by its NRC license on the date of the inspection. Staff Exhibit 3, Attachment 10 at 2; Tr. 238 (Testimony of Keith A. Reich).

35. I find that the reliable, probative and substantial evidence supports the finding that the Licensee violated condition 10 of NRC License No. 25-18304-01 by storing its 125 millicurie cesium-137 source at a location other than 1019 Arlington Drive, Billings, Montana. 14/

E. The Licensee Failed To Conduct Leak Testing Of Sealed Sources In Its Possession At The Required Intervals

Statement of the Violation

36. Violation 5 as described in the Notice charges that:

License Condition 13.A(1) requires, in part, that each sealed source containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed 6 months.

Contrary to this requirement, two sealed sources containing 15.5 millicuries and 25 millicuries of americium-241, respectively, were not tested within six month periods from November 20, 1981 to and April 30, 1984.

Staff Exhibit 3, Attachment 9 at 4.

Findings of Fact

37. There is no factual dispute between the parties concerning Violation 5. Mr. Hooker testified that from his review of the Licensee's records during the inspection, leak tests were conducted on the americium-241

14/ The Licensee's defense to this violation concerns the adequacy of the airport location for storage of the cesium source. This argument goes to the significance of the violation, and accordingly, I will consider the Licensee's argument in that context.

sources on January 20 and November 20, 1981, January 12, 1983 and April 30, 1984. Hooker Testimony at 16 (following Tr. 75). Mr. Hooker also testified that since the americium-241 sources possessed by the Licensee were taken in and out of storage during the period April 15, 1981 through June 20, 1984, leak tests should have been conducted prior to any renewed use of the sources, unless a leak-rate test had been conducted no more than six months prior to the date of renewed use. Hooker Testimony at 16-17 (following Tr. 75). 15/

38. I note that the leak test dates identified by the Licensee in its Response were the same as those identified by Mr. Hooker during the inspection. The Licensee admitted in its Response that it failed to conduct a leak test for the 15.5 millicurie source in 1983 when required, but asserted that since the 25 millicurie was not in use after November 18, 1982, leak testing was not required after that date. Staff Exhibit 3, Attachment 10 at 2. The Licensee offered no evidence at the hearing with respect to this violation.

39. I find that the utilization logs, when compared with the dates on which leak tests were conducted, substantiate the violation as stated in the Notice. The 15.5 millicurie source was placed into service in Rock Springs, Wyoming, on May 10, 1982. Staff Exhibit 1. However, the most recent leak test was conducted on that source on November 20, 1981, a period more than six months prior to May 10, 1982. The same source, after being taken out of service in 1982, was placed back into service on November 18, 1983 in

15/ Under license condition 13A.(2), periodic leak tests need not be conducted for sealed sources that are stored and not being used; however, such sources must be tested for leakage prior to any use or transfer to another person unless a leak test was conducted within six months prior to the date of use or transfer. Staff Exhibit 3, Attachment 1 at 2.

Colstrip, Montana. Staff Exhibit 2. The most recent leak test had been conducted on January 12, 1983, a period of more than six months prior to November 18, 1983. Hooker Testimony at 16 (following Tr. 75); see Staff Exhibit 3, Attachment 10 at 2.

40. The 25 millicurie source was also not leak tested as required. After being taken out of service in 1981, the 25 millicurie source was placed back into service in Kemmerer, Wyoming, on August 4, 1982. Staff Exhibit 2. However, the most recent leak test was conducted on November 20, 1981, a date more than six months prior to August 4, 1982. Hooker Testimony at 16-17 (following Tr. 75); see Staff Exhibit 3, Attachment 10 at 2.

41. The Notice only charges the Licensee with failing to conduct leak tests for the period November 20, 1981 to April 30, 1984. Notwithstanding the time period specified in the Notice, the Licensee at other times failed to conduct leak tests as required by the license. For example, the 15.5 millicurie source was placed into service in an NRC-regulated jurisdiction, Wright, Wyoming, on August 5, 1981. Staff Exhibit 1. Yet the most recent leak test of that source was conducted on January 20, 1981, a date more than six months prior to August 5, 1981. Similarly, a leak test was not conducted on the 25 millicurie source when required in 1981. This source was placed into service on July 30, 1981 in Tongue River, Montana. Staff Exhibit 1. However, the most recent leak test of the source was conducted on January 20, 1981, a date more than six months prior to July 30, 1981. Hooker Testimony at 16-17 (following Tr. 75); see Staff Exhibit 3, Attachment 10 at 2. It is evident that the Licensee's failure to conduct leak tests is far more prevalent than the Licensee admits.

42. In sum, the reliable, probative and substantial evidence establishes that the Licensee violated license condition 13.A(1) as charged in the

Notice by failing to conduct leak tests of sealed sources containing radioactive material at the required intervals.

F. The Licensee Failed To Comply With Certain U.S. Department Of Transportation Regulations Applicable To It By The Terms Of Its License

Statement of Violation

43. Violation 6 as described in the Notice charges that:

10 CFR 71.5(a) requires, in part, that no licensee shall transport any licensed material outside the confines of his plant or other place of use, or deliver any licensed material to a carrier for transport unless the licensee complies with applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation in 49 CFR Parts 170-189. 16/

- a. 49 CFR 172.403 requires that each package of radioactive material, unless excepted from labeling by § 173.391 or § 173.392, be labeled, as appropriate, with a RADIOACTIVE WHITE-I, a RADIOACTIVE YELLOW-II, or a RADIOACTIVE YELLOW-III label. 17/

Contrary to the above, on June 20, 1984, the containers used to transport radioactive well-logging sources were not labeled with an appropriate RADIOACTIVE WHITE-I, a RADIOACTIVE YELLOW-II, or a YELLOW-III label.

16/ I note that Condition 16 of NRC License No. 25-18304-01 also required the Licensee to transport licensed material in accordance with the provisions of 10 CFR Part 71. Staff Exhibit 3, Attachment 1 at 3; Tr. 137 (Testimony of Charles A. Hooker).

17/ Prior to November 1983, the sections listed in the citation contained the categorical exceptions to 49 CFR § 172.403. However, with the amendment of the Department of Transportation regulations (effective November 1, 1983), the exceptions to 49 CFR § 172.403 were relocated in 49 CFR §§ 173.421 through 173.425. The substantive requirement to label shipping containers with a White-I, Yellow-II or Yellow-III label could always be found in 49 CFR § 172.403. See 49 CFR § 172.403(a)-(d), (f)-(g) (1981 & 1982); 49 CFR § 172.403(a)-(c), (f)-(g) (1983 & 1984); Tr. 137 (Testimony of Charles A. Hooker). This issue has not been raised by the Licensee and is not material to resolution of the violation.

- b. 49 CFR 178.305-3 [sic] requires that each package used to transport Type A quantities of radioactive material have the markings "USA DOT 7A type A." 18/

Contrary to the above, on June 20, 1984, sealed sources containing millicurie quantities of americium-241 were being transported in packages that were not marked as "USA DOT 7A Type A" containers.

Findings of Fact

44. I note that many of the facts underlying this violation are in dispute. Mr. Hooker testified that on the day he conducted the inspection, he did not observe any distinctive Department of Transportation (DOT) markings or labels on either of the Licensee's americium-241 source containers, other than a metal tag identifying each source. Hooker Testimony at 11 (following Tr. 75). Mr. Hooker further testified that in view of the amounts of americium the Licensee possessed, he had expected to see a "Radioactive White I" label on the containers, and the markings "USA DOT 7A Type A" and "Radioactive Material" on the source containers. Hooker Testimony at 11-12 (following Tr. 75). Mr. Hooker was informed by the Licensee that, when transported to temporary job sites, the source containers looked exactly as Mr. Hooker observed them on the day of the inspection. Hooker Testimony at 12 (following Tr. 75).

45. Although some ambiguity exists, the Licensee admitted in its Response that Radioactive White-I labels and USA DOT 7A Type A tags were not

18/ The Notice of Violation contains a typographical error. The regulatory requirement should be correctly stated in the citation as "49 CFR § 178.350-3." The Licensee has not raised this error as creating a defect in the notice required by 10 CFR § 2.201. In all events, the NRC inspection report contains the correct citation; thus the Licensee had notice of the violation with which it was charged. Hooker Testimony,

affixed to the source containers. 19/ Staff Exhibit 3, Attachment 10 at 2-3. However, at hearing, a fundamental factual dispute developed between the parties with respect to the presence of a White-I label. Mr. Reich testified to the presence of a label in the general vicinity of each source, which he identified as a "Radioactive 2" label. Tr. 244.

46. Mr. Hooker recalled a radioactive materials sign in the vicinity of each source indicating the presence of radioactive material in the area, which Mr. Hooker recognized as the appropriate designation for a radioactive materials storage area. Tr. 246; see 10 CFR 20.203(e)(1). However, Mr. Hooker also testified that a White-I transport label, which requires additional information from that of a storage label, was not present in the vicinity of either of the sources. Tr. 243-47.

47. Considering the evidence in its entirety, I find there was no Radioactive White-I label either on or posted in the general vicinity of the source containers. Mr. Hooker testified several times on this point and the Licensee admitted as much in its Response. Much of the confusion on this issue at hearing can be traced to Mr. Reich's failure to recognize that the universal three-bladed radiation symbol, see 10 CFR 20.203(a)(1) (1985), is

(FOOTNOTE CONTINUED FROM PREVIOUS PAGE)

Attachment 2 at 4 (following Tr. 75). The Licensee was also aware of the violation with which it was charged. See Staff Exhibit 3, Attachment 10 at 2-3.

19/ In discussing both transportation violations, the Licensee stated that "We do not deny that [a radioactive White-I label and USA DOT 7A Type A tags were] were attached to the storage container." Staff Exhibit 3, Attachment 10 at 3-4 (emphasis supplied). While the Licensee may have omitted the word "not," the Licensee's subsequent discussion in the Response makes clear that it had admitted the absence of such labels and markings and thereby admitted the violations.

displayed on various labels and signs required to be posted to identify the presence of radioactive material or radiation hazards. Compare 49 CFR §§ 172.436-172.440 (1984) with 10 CFR § 20.203(b)-(f) (1985).

48. There was no dispute between the parties at the hearing or otherwise with respect to the absence of the "USA DOT 7A Type A" marking from the source containers. Consequently, I find that this marking was not located on the containers.

49. The Licensee seeks to excuse its failure to have a Radioactive White-I label on or near its source containers. There were two aspects to the Licensee's argument. First, the Licensee argued that it was impossible to place White-I labels on the source containers in view of the size of the label when compared to the source container. Tr. 242-43 (Testimony of Keith A. Reich). Secondly, the Licensee argued that the manufacturer of the source was responsible for providing required labeling to its customers. According to Mr. Reich, the source containers were labeled and marked on the day of Mr. Hooker's inspection in the same manner as when they were received from the manufacturer. Therefore, Mr. Reich argues the Licensee's non-compliance should be excused on the basis of the manufacturer's failure to provide the appropriate labels and markings. Tr. 108-10 (Testimony of Keith A. Reich); Staff Exhibit 3, Attachment 10 at 3.

50. With respect to impossibility, I find that it would not have been impossible for the Licensee to comply with the requirement concerning a Radioactive White-I label. The requirement for a Radioactive White-I label would have been satisfied if a label was merely posted in the general vicinity of the source containers while they were in transport. Tr. 243 (Testimony of Charles A. Hooker). Certainly this would have been possible for the Licensee to accomplish.

51. Nor I am persuaded that the Licensee's argument concerning the source manufacturer's failings should excuse noncompliance here. 10 CFR § 71.5(a) is clear in requiring that all Commission licensees are responsible for complying with applicable DOT requirements. Reich Geo-Physical, Inc., as an NRC licensee, was independently responsible for ensuring that its americium sources were labeled and marked as required by the transportation requirements. See Flack Testimony at 18 (following Tr. 144). I also note that 10 CFR § 150.20(b) requires agreement state licensees in NRC-regulated jurisdictions to comply with Part 71. Moreover, in 1982, the NRC forwarded a notice to all licensees concerning the applicability of DOT requirements to their activities. Among other information, the notice discussed the required labels and markings for the type of source container possessed by the Licensee. Tr. 135-36 (Testimony of Charles A. Hooker). As a result, the Licensee was placed on notice of its responsibility to comply with transportation requirements. 20/ I also note that when the manufacturer supplied the 15.5 millicurie source to the Licensee, the accompanying shipping papers indicated that a White-I label was appropriate. Tr. 240-41

20/ The Licensee argued that at the time of its initial NRC inspection in 1981, it was found to be in compliance with applicable transportation requirements and, consequently, it was unaware of any deficiencies in its program with respect to the transportation of radioactive material. See Tr. 103-05 (Testimony of Keith A. Reich). NRC's failure to identify certain violations in 1981 does not bar it from identifying violations of the same regulatory requirements at some later point in time. The NRC's own inspection program for enforcement of transportation regulations was not fully implemented until after the Licensee's 1981 inspection had been conducted. Thus, an inspection conducted at the time of the Licensee's initial inspection (April 14, 1981) would not have focused on transportation requirements to the same extent as an inspection conducted in later years. Tr. 135-39 (Testimony of Charles A. Hooker). In any event, the Licensee was provided with notice as to its responsibility to comply with transportation requirements in 1982.

(Testimony of Keith A. Reich). These shipping papers resolve any doubt that the Licensee was on notice that a White-I label was appropriate for the source.

52. In sum, the reliable, probative and substantial evidence supports the finding that the Licensee failed to comply with the DOT requirements specified in 49 CFR §§ 172.403 and 178.350-3 when it transported radioactive material during the period April 15, 1981 through June 20, 1984.

III. TPE VIOLATIONS SHOULD BE CLASSIFIED AS A SEVERITY LEVEL II PROBLEM

53. Having concluded that violations of regulatory requirements were committed by the Licensee as alleged in the Notice, I must now determine whether enforcement action is appropriate. In this regard, I am guided by the Commission's "General Statement of Policy and Procedure for Enforcement Actions" (Enforcement Policy), contained in Appendix C to 10 CFR Part 2 (1985). The Enforcement Policy categorizes violations in terms of five levels of severity that are representative of their relative importance and safety significance within each of eight activity areas. The Staff assessed as a single Severity Level II problem area to the six violations committed by Reich Geo-Physical. The Staff aggregated the violations into a single severity level to focus on the underlying common cause of the violations. The severity level was selected by the Staff in view of the particular significance of two of the violations and the Licensee's careless disregard for regulatory requirements. Flack Testimony at 10-11 (following Tr. 144); Tr. 146-47 (Testimony of Edwin D. Flack); Staff Exhibit 3, Attachment 9. A Severity Level II matter is of very significant regulatory concern, and in the absence of mitigating circumstances, results in the imposition of a civil penalty. See 10 CFR Part 2, Appendix C at Section III, Section V(B) (1985).

Accordingly, I now turn to determining whether the Staff's determination was appropriate in view of the Enforcement Policy and the circumstances of this case.

A. The Violations Should Be Considered As A Single Problem Area In View Of Their Common Cause

54. Even though each of the violations could be categorized individually at an appropriate severity level, the violations committed by the Licensee should not be treated in this manner. The Enforcement Policy provides that:

In each case, the severity of a violation will be characterized at the level best suited to the significance of the particular violation. In some cases, violations may be evaluated in the aggregate and a single severity level assigned for a group of violations.

10 CFR Part 2, Appendix C at Section III (1985). From my review of each violation, it is apparent that the violations are attributable to a common cause--the Licensee's failure to exert sufficient control over licensed activities to ensure compliance with regulatory requirements. Staff Exhibit 3, Attachment 9 at 1; Flack Testimony at 10 (following Tr. 144). I find that it is appropriate here to aggregate the six violations into one problem area to be assessed a single severity level.

B. The Violations Are Of Very Significant Regulatory Concern

55. Having decided to treat the violations committed by the Licensee as one problem area, I must now determine which of the five severity levels described in the Enforcement Policy is appropriate for application in this case. Relevant to the assessment of a severity level is both the safety significance of the individual violations and the Licensee's attitude towards compliance. I now turn to an examination of both of these issues.

The Violations Have Safety Significance

56. The Enforcement Policy provides examples of violations at various severity levels. Although these examples are intended to be neither controlling nor exhaustive, they do provide a starting point for assessing the significance of the violations in a particular case. ^{21/} 10 CFR Part 2, Appendix C at Section III (1985).

57. Violation 1, involving the Licensee's possession and use of its americium sources in NRC jurisdictions without prior NRC approval, is a Severity Level III violation falling within example C(2) of Supplement III-- "[P]ossession or use of unauthorized equipment or materials in the conduct of licensee activities which degrades safety." The degradation of safety involved in the Licensee's activities was its regular use of americium in NRC-regulated jurisdictions without NRC cognizance. In the absence of notice as to the location of use of material, the NRC was unable to ensure that proper radiological controls were implemented by the Licensee when the americium sources were used. NRC uses inspections to ensure that agreement state licensees are handling radioactive material safely when using that material in states subject to NRC jurisdiction. The Licensee's failure to provide notice when it was using the americium sources at specific job sites prevented the NRC from monitoring its activities to ensure that proper

^{21/} Each example illustrates the significance NRC places on a particular type of violation, and is predicated on a violation of a regulatory requirement. 10 CFR Part 2, Appendix C at Section III (1985).

Five of the six violations committed by Reich Geo-Physical are associated with its conduct of well-logging operations. As a result, these violations are properly evaluated under Supplement VI of the Enforcement Policy, "Fuel Cycle and Materials Operations." The sixth violation, involving the transportation of radioactive material, is properly evaluated under Supplement V of the Policy, "Transportation."

radiological controls were being implemented and that misuse had not occurred. Flack Testimony at 8 (following Tr. 144); Tr. 196 (Testimony of Edwin D. Flack).

58. Violation 2, involving the use of the americium sources by individuals not listed on the Reich Geo-Physical license also fits a Severity Level III example. This violation is illustrative of example C(4) in Supplement VI-- the "[c]onduct of activities by a technically unqualified person." Activities were conducted by individuals not named on the license without the physical presence and supervision of Mr. Reich, the only authorized user. No evidence was brought to my attention which would lead me to believe either individual was technically qualified. 22/ The danger in allowing unauthorized and unsupervised individuals to use radioactive material arises from their inadequate training and lack of knowledge as to radiation hazards. In the absence of appropriate training, unnecessary radiation exposure to both the user and members of the public could result. Flack Testimony at 9 (following Tr. 144).

59. Violations 3 through 6, involving failure to calibrate survey meters at the required intervals, storage of the cesium source at an unauthorized location, failure to conduct leak tests as required and failure to comply with applicable transportation requirements, are examples of Severity Level IV violations. Under the Enforcement Policy, Severity

22/ Although the Licensee stated in its Response to the Notice that J. Jarocki and Terry Dowling were technically qualified to use the americium sources without supervision because they had been trained by the authorized user, no other evidence was presented at the hearing to substantiate this assertion. Moreover, Mr. Flack testified that the license did not permit Mr. Reich to train individuals to qualify them as authorized users. Flack Testimony at 16 (following Tr. 144). See generally Staff Exhibit 3, Attachment 1.

Level IV encompasses those violations which are of more than minor concern for, if left uncorrected, they could lead to a more serious concern. See 10 CFR Part 2, Appendix C at Section III (1985). These particular violations, if left uncorrected, could potentially result in such serious concerns as erroneous radiation readings, undetected leakage of radioactive material and improper emergency actions. See Flack Testimony at 9 (following Tr. 144).

60. Accurate radiation readings are dependent upon survey meter calibration. The accuracy of the radiation readings taken by the Licensee are questionable since the Licensee failed to calibrate its survey meters as required. See Tr. 200-01 (Testimony of Edwin D. Flack). The potential consequences of reliance on inaccurate instrumentation -- excessive radiation exposure and even overexposure -- are even more likely in view of the Licensee's failure to conduct leak tests on the sealed americium sources in its possession. Even accurate survey meters may miss small amounts of leaking americium. Tr. 186-89 (Testimony of Edwin D. Flack). Labeling and marking requirements of the Department of Transportation are important if an accident occurs since emergency workers need to be made aware of the problems associated with the material. Flack Testimony at 9 (following Tr. 144); Tr. 247 (Testimony of Charles A. Hooker). The consequence of using an unauthorized storage location could result in unnecessary radiation exposure to licensee personnel and members of the public. When authorizing a storage location, the NRC considers the manner in which material is stored and the precautions taken to ameliorate radiation hazards posed by the material. The Licensee's unilateral decision to use a storage location different than that approved defeated the NRC licensing process. It is not the Licensee's decision to determine what is safe:

[W]hen one becomes a licensee of this Commission he must accept and be held to an extraordinary responsibility for safety. The Commission's safety regulations and license conditions reflect the Commission's considered judgment as to what is required to protect the public as well as licensees' employees from the hazards inherent in the industrial use of radioactive byproduct material.

Atlantic Research Corp., CLI-80-7, 11 NRC 413, 425 (1980).

61. The Licensee challenged the Staff's assessment of the significance of the violations by arguing that its particular americium sources posed less of a radiation hazard than the cesium source it was licensed to possess and use. Tr. 173-77 (Testimony of Keith A. Reich). In the Licensee's view, since it had engaged in appropriate radiation control practices when handling the americium sources, any violations of regulatory requirements had minimal safety significance. See Tr. 199-200 (Testimony of Keith A. Reich).

62. The Staff testified that while the cesium source possessed by the Licensee is of greater radioactivity than the americium sources, the americium sources are of greater radiotoxicity. Tr. 177-78 (Testimony of Edwin D. Flack). The radiotoxicity of americium is of more significance than its radioactivity. Tr. 174-78 (Testimony of Edwin D. Flack). The safety concern with cesium from a health physics perspective derives from the gamma radiation it emits, which is manifested in external radiation exposures. Tr. 174-75, 177-78 (Testimony of Edwin D. Flack). In contrast, the health concern with americium arises from the alpha radiation it emits, which if taken into the body, may result in possible health effects. The Licensee's safety practices with respect to time, distance and shielding, while appropriate for cesium, are much less important when americium is being used. Tr. 199-200 (Testimony of Edwin D. Flack). Thus, the evidence does not support the Licensee's assertion that the safeguards used with respect to its cesium source are adequate for its americium sources.

63. The Licensee also argued that its particular operations reduced the significance of the violations. Mr. Reich testified that he had never been involved in a radiological incident, nor was he likely to be, because of the nature of the type of well-logging he performed. ^{23/} Consequently, the public health and safety had not been threatened by Reich Geo-Physical's practices with respect to radioactive material. See Tr. 126-27, 169, 179-82, 212, 257.

64. Notwithstanding the absence of any previous radiological incident resulting from the Licensee's operations (e.g., loss of material, overexposure, or excessive contamination), the significance of the violations arises from the potential consequences which could result. Tr. 172 (Testimony of Edwin D. Flack). Incidents may occur not only as a result of the Licensee's own unsafe practices, but may occur from non-routine operations, mishandling or natural deterioration of the sources. Tr. 178-81, 209 (Testimony of Edwin D. Flack). Actual exposure is not required for a violation to be judged "significant." In X-Ray Engineering Company, the Atomic Energy Commission responded to a claim by a licensee that its offenses should be regarded as less severe because no personal injuries occurred by stating that:

[o]ur statutory obligation to protect the public health and safety is not subject to the condition precedent that actual injuries occur... . Our regulations require meticulous attention to detail to assure the adequate protection of the public health and safety, and a licensee who regards them as trivial demonstrates a lack of understanding of the Commission's, and the Licensee's own, obligation with respect to the public health and safety.

^{23/} Mr. Reich testified that his well-logging sources were not subjected to resistive force when in use; consequently, the probability was low that a tool would become stuck or be punctured while in use. Tr. 179-81.

CLI-60-11, 1 AEC 553, 555 (1960).

65. Taken together, the individual Severity Level III and Severity Level IV violations committed by the Licensee are indicative of serious failings in the Licensee's program to ensure safe use of radioactive material.

The Violations Demonstrate That The Licensee Has A Careless Disregard Toward Compliance

66. A second factor used by the Staff in assessing a Severity Level II problem in this case was its perception of the Licensee's careless disregard for compliance with regulatory requirements. Staff Exhibit 3, Attachment 9 at 1-2; Flack Testimony at 10-11 (following Tr. 144). The Enforcement Policy allows for escalation on this basis:

The severity level of a violation may be increased if the circumstances surrounding the matter involve careless disregard of requirements, deception or other indications of willfulness. The term "willfulness" as used here embraces a spectrum of violations ranging from deliberate intent to violate or falsify to and including careless disregard for requirements.

10 CFR Part 2, Appendix C at Section III (1985). Factors considered under the Policy in determining the specific severity level of a violation involving willfulness include the significance of the underlying violation and the intent of the violator, "i.e., negligence not amounting to careless disregard, careless disregard, or deliberateness...." 10 CFR Part 2, Appendix C at Section III (1985).

67. The definition of willfulness found in the Enforcement Policy is consistent with the relevant case law. The courts recognize different degrees of willfulness distinguished by the intent of the violator in civil cases. See Wehr v. Burroughs Corp., 619 F.2d 276, 281-83 (3rd Cir. 1980). Consequently, evil intent is not necessary in a civil case for a finding of

willfulness to be made. "[I]f a person...intentionally does an act which is prohibited, - irrespective of evil motive or reliance on erroneous advice, or . . . acts with careless disregard of statutory requirements, the violation is wilful." Goodman v. Benson, 286 F.2d 896, 900 (7th Cir. 1961). See also Flaxman v. Commodity Futures Trading Comm., 697 F.2d 782, 787 (7th Cir. 1983). Moreover, repeated violations, coupled with knowledge of the law's requirements, have been found to be sufficient evidence of willfulness. See Eastern Produce Co. v. Benson, 278 F.2d 606, 609 (3rd Cir. 1960).

68. The standard for willfulness stated in the Eastern Produce case is reflected in NRC enforcement case law. In X-Ray Engineering Co., CLI-60-11, 1 AEC 553 (1960), a finding of willful conduct was sustained by the Commission under circumstances where it was demonstrated that the licensee knew what was required of it under the Commission's regulations and the terms and conditions of its license. According to the Commission, the "failure to comply therewith manifestly establishes the requisite willfulness...." 1 AEC at 555. Similarly, in Hamlin Testing Laboratories, Inc., 2 AEC 423 (1964), aff'd 357 F.2d 632 (6th Cir. 1966) the Commission found that: "[t]he continuation of certain violations after they had been called to the licensee's attention confirms the willful character of the pattern of violations." 2 AEC at 428. See also New York Shipbuilding Corp., 1 AEC 707, 719 (1961); Coastwise Marine Disposal Co., 1 AEC 581, 587, aff'd, 1 AEC 619 (1960).

69. The standard for a finding of willfulness stated in X-Ray Engineering Co. and Hamlin Testing is met in this case. When the Licensee was last inspected by the NRC in 1981, two violations of regulatory requirements were identified: the possession of a 15.5 millicurie americium-241 sealed source not authorized by its NRC license and the failure to have its

survey meters calibrated at the six-month intervals required by the license. Enforcement action was taken in the form of a notice of violation. Staff Exhibit 3, Attachment 4 at 3; Hooker Testimony at 4 (following Tr. 75). The Licensee agreed to correct the violations by either applying for a license amendment for possession of the 15.5 millicurie americium-241 source, or by placing the americium-241 source in safe storage and discontinuing its use until the license was amended or a completed Form NRC-241 was submitted to the NRC. Staff Exhibit 3, Attachment 5; Hooker Testimony at 4-5 (following Tr. 75). In addition, the Licensee agreed to have its survey meters calibrated. ^{24/} See Staff Exhibit 3, Attachment 6. However, as demonstrated here, the meters were in fact not calibrated. It is evident that, as of 1981, the Licensee understood that NRC authorization of some type was required for possession and use of the americium sources in NRC-regulated jurisdictions and that its license required calibration of survey meters. Consequently, the continued conduct of the Licensee, despite notice that such practices were unlawful, is sufficient to sustain the finding that the violations were willful. See American Fruit Purveyors, Inc. v. U.S., 630 F.2d 370, 374 (5th Cir. 1980), cert. denied, 450 U.S. 997 (1981); Air Transport Associates v. CAB, 199 F.2d 181, 186 (D.C. Cir. 1952); Hughes v. SEC, 174 F.2d 969, 976-77 (D.C. Cir. 1949).

70. The Licensee denies that it acted in careless disregard of NRC requirements, and points to a number of factors in support of its position. The Licensee argued that it attempted to obtain license amendment forms from the NRC but was not successful. Tr. 189-94, 216-17 (Testimony of Keith A.

^{24/} The Licensee subsequently informed the NRC that these corrective actions were being implemented. See Staff Exhibit 3, Attachment 6.

Reich). The Licensee also argued that the short notice on which it schedules its business precluded it from listing specific job sites on a Form NRC-241. Tr. 197, 213 (Testimony of Keith A. Reich). With respect to the Form NRC-241 it did file, the Licensee asserted that NRC should have been aware that well-logging would not be conducted at its business address when it approved activities. Tr. 88 (Testimony of Keith A. Reich). The Licensee principally argued, however, that it was engaged in an ongoing effort to improve its program, as evidenced by obtaining a more secure location for its cesium source and its compliance history in North Dakota, which would negate any finding of willfulness. Tr. 116, 252 (Testimony of Keith A. Reich); Reich Exhibit 1.

71. I am not persuaded by the Licensee's arguments. On cross examination, Mr. Reich stated that he made two oral requests for license amendment forms, one to NRC Region IV and another to NRC Headquarters. However, the Licensee did not follow up on either request when amendment forms were not received. Tr. 216-18. The Licensee was aware that a Form NRC-241 was a temporary authorization to conduct activities, but did not file subsequent forms for activities conducted in 1982 and 1983. See Tr. 194, 216 (Testimony of Keith A. Reich). The only form submitted by Mr. Reich specifies only that material would be used from June through December 1981. See Staff Exhibit 3, Attachment 7.

72. I note that a Form NRC-241 need only be filed three days before activities are to be conducted. In addition, telephone notification is also permissible. 10 CFR § 150.20(b)(1) (1985). In view of the length of time

the Licensee remained at particular job sites, 25/ the requirements of 10 CFR § 150.20 could have been complied with upon notification of a job, and NRC would have received timely notice of proposed activities.

73. Nor am I convinced that the Licensee's efforts to find a more suitable location for its cesium source or its North Dakota compliance history are sufficient demonstrations of a good faith effort to achieve compliance which outweigh the significance of the repetitive violations. The Licensee was placed on notice in 1981 that its possession of americium without NRC authorization and its failure to have its survey meters calibrated constituted violations of NRC requirements, yet the Licensee persisted in these practices for another three years. In addition, the Licensee admitted that its failure to calibrate survey meters was motivated by financial considerations. See Staff Exhibit 3, Attachment 10. I also note that the Licensee's asserted efforts to upgrade its program are recent, as it was only in June 1984 that the Licensee, without NRC authorization, relocated its cesium source. See Staff Exhibit 3, Attachment 10 at 2. A licensee may not simply choose what requirements it will follow.

74. Moreover, the Licensee's North Dakota compliance history has only improved in recent months. See Reich Exhibit 1. In 1982 and 1984, North Dakota identified 13 and 2 violations, respectively, of license and regulatory requirements. Among the violations identified during the 1982 North Dakota inspection was a failure to calibrate survey meters at six-month

25/ From an examination of the utilization logs, it is evident that the Licensee spent extended periods of time in Wright, Wyoming and Emery, Utah in 1981, and in Rock Springs and Kemmerer, Wyoming in 1982. See Staff Exhibits 1 & 2. These extended periods of work in a single location make the Licensee's argument with respect to the difficulty of compliance even less credible.

intervals. Staff Exhibit 4 at 2. In 1984 North Dakota identified this same violation again, as well as the failure to conduct leak tests on sealed sources. Staff Exhibit 5 at 1. Not only had NRC provided the Licensee with notice that certain of its activities failed to meet regulatory requirements, but North Dakota did as well.

75. In sum, I find that the circumstances of this case demonstrate that the Licensee acted in careless disregard for NRC requirements.

Assessment Of The Violations As A Severity Level II Problem Is Warranted

76. It has been amply demonstrated that the violations committed by the Licensee raise significant safety concerns. Moreover, the repetitive nature of the violations indicates that the Licensee acted with careless disregard as to whether it was in compliance with regulatory requirements. The cumulative effect of the importance of the violations and the Licensee's careless disregard make the Licensee's actions of very significant regulatory concern. Hence, the violations warrant a Severity Level II classification.

IV. A CIVIL PENALTY OF \$1600.00 IS APPROPRIATE FOR THE VIOLATIONS

77. Having determined that the violations are of very significant regulatory concern and should be classified as a Severity Level II problem in accordance with the Enforcement Policy, I must now decide whether a civil penalty is appropriate and, if so, in what amount. Under the Enforcement Policy, civil penalties are generally imposed, absent mitigating circumstances, for Severity Level II violations. See 10 CFR Part 2, Appendix C at Section III (1985). In view of this guidance, and the significance of the identified violations, I find that a civil penalty should be imposed.

78. The Staff argued that a civil penalty would be particularly important here to emphasize to the Licensee the importance of compliance with NRC requirements. In addition, the Staff argued that a penalty would provide notice to similarly situated licensees to take whatever measures necessary to prevent similar noncompliance. Flack Testimony at 11 (following Tr. 144); Tr. 201-02 (Testimony of Edwin D. Flack).

79. I also find that the imposition of a civil penalty will serve a remedial purpose. A civil penalty emphasizes the importance of compliance with NRC requirements and places the Licensee on clear and unambiguous notice that a "high standard of compliance" with NRC requirements and "meticulous attention to detail" is necessary and expected, and that lasting and effective corrective action is required. See Hamlin Testing Laboratories, Inc., 2 AEC 423, 428 (1964), aff'd, 357 F.2d 632, 638 (6th Cir. 1966); X-Ray Engineering Co., 1 AEC 553, 555 (1960); Atlantic Research, Inc., CLI-80-7, 11 NRC 413, 420-21 (1980); Radiation Technology, Inc., ALAB-567, 10 NRC 533, 535 (1979). Moreover, the Enforcement Policy provides that "[c]ivil penalties will normally be assessed...for any willful violation of any Commission requirement including those at any severity level." 10 CFR Part 2, Appendix C at Section V(B) (1985).

80. Tables 1A and 1B of the Enforcement Policy provide guidance in determining the appropriate amount of a civil penalty. These tables identify the base civil penalty values for different severity levels, activity areas and classes of licensees. Reich Geo-Physical, Inc., falls in the category of "other material licensees" under Table 1A. Table 1B specifies a base penalty of \$800.00 for a Severity Level II violation for such licensees. 10 CFR Part 2, Appendix C, at Section V(B) (1985).

81. The Enforcement Policy also provides that a base civil penalty amount may be increased or decreased depending upon a consideration of the relevant circumstances. A base penalty may be escalated for, among other things, prior poor performance and the duration of a violation. 10 CFR Part 2, Appendix C at Section V(B)(3) & (5) (1985). ^{26/} With respect to past performance, the Policy provides that failure to implement previous corrective action for prior similar problems may result in an increase in the civil penalty. 10 CFR Part 2, Appendix C at Section V(B)(3) (1985). Inasmuch as the Licensee continued to use unauthorized americium sources and failed to calibrate its survey meters following the 1981 NRC inspection, it is obvious that the previous corrective action was not implemented. As to duration, the Enforcement Policy states that "[a] greater civil penalty may be imposed if a violation continues for more than a day." 10 CFR Part 2, Appendix C at Section V(B)(5) (1985). The Enforcement Policy provides that:

If a licensee is aware of the existence of a condition which results in an ongoing violation and fails to initiate corrective action, each day the condition existed may be considered as a separate violation and, as such, subject to a separate additional civil penalty.

10 CFR Part 2, Appendix C at Section V(B)(5)(1) (1985). See also Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2282.

82. The Licensee's continued possession and use of unauthorized americium sources could constitute a continuing violation such that a daily assessment of civil penalties could have been made. The Licensee was

^{26/} The Director of the Office of Inspection and Enforcement escalated the base civil penalty against Reich Geo-Physical by 100 percent, resulting in a penalty of \$1600.00, in view of the Licensee's poor enforcement history and length of time over which the violations occurred. See Staff Exhibit 3, Attachments 9 & 11; Flack Testimony at 12 (following Tr. 144).

certainly made aware in 1981 that failure to obtain NRC authorization for the americium sources would violate NRC requirements, yet it failed to initiate corrective action by either amending its license or notifying the NRC as required by 10 CFR § 150.20 that it planned to use the material. It has been well established that the Licensee used radioactive material on numerous occasions without NRC approval. On several occasions, the Licensee also failed to calibrate its survey meters. The Staff, in its discretion, increased the base penalty, rather than imposing separate penalties for each day. Daily civil penalties are not inappropriate here. Flack Testimony at 20 (following Tr. 144). However, recognizing that I am not authorized to increase the sanction, see 10 CFR § 2.205(f)(1985), I find that the base civil penalty should be escalated by 100 percent based on the Licensee's past performance and the duration of the violation.

83. The Licensee requested complete mitigation of the civil penalty on the basis that the violations had been corrected, that it had suffered from harsh publicity and had been financially penalized through a loss in revenue, and that inadequate time was allowed to review the Notice before the media was notified. Staff Exhibit 3, Attachment 10 at 3-4.

84. Of the arguments in support of mitigation raised by the Licensee, only one, corrective action, is a mitigating factor under the Enforcement Policy. See 10 CFR Part 2, Appendix C at Section V(B) (1985). Publicity which may have resulted from issuance of the Notice may put the Licensee in an uncomfortable position, but Commission enforcement actions are matters of public record. See Tr. 201-02. (Testimony of Edwin D. Flack). The NRC extends to its licensees the courtesy of notifying them of impending enforcement action to enable them to respond to media inquiries. However, this notification is a courtesy only, and is of no legal consequence to the

process for contesting an enforcement action or to the Licensee's liability for a civil penalty. With respect to its argument regarding loss of revenue, the Licensee presented no evidence at hearing to demonstrate that mitigation of the penalty was justified on this basis. 27/ Accordingly, I find that mitigation of the penalty on the basis of loss of revenue and harsh publicity is not justified.

85. In considering the Licensee's argument that its corrective action justifies mitigation of the penalty, I note that under the Enforcement Policy, corrective action is always required to meet regulatory requirements. If corrective action is not prompt or is only "minimally acceptable," the civil penalty may be increased by as much as 50 percent. Factors to be considered in mitigating a penalty on the basis of corrective action include timeliness of the corrective action, the degree of the licensee's initiative in developing the corrective action and the comprehensiveness of its corrective action. See 10 CFR Part 2, Appendix C at Section V(B)(2) (1985); Flack Testimony at 18 (following Tr. 144). Reich Geo-Physical's actions do not meet these criteria. The corrective actions taken for the violations after identification in 1984 were only those actions which the NRC would expect the Licensee to take, and were not unusually prompt or extensive. See Staff Exhibit 3, Attachment 10, Appendix at 3. The Licensee introduced no evidence on this issue, and I am not persuaded by the argument that the Licensee's present

27/ The Licensee declined to respond to the Staff's discovery requests on this issue since it viewed financial information as "not relevant" to the proceeding. See Letter to Reich Geo-Physical, Inc. from L. Cuoco, Counsel for NRC Staff (July 16, 1985). In view of the Licensee's response to discovery, and its failure to raise the issue at hearing, I consider this defense to be waived.

compliance 28/ justifies mitigation for very significant violations of regulatory requirements, some of which were previously identified to the Licensee. I find that no mitigation for corrective action is appropriate in this matter. Having considered the Enforcement Policy's guidance in assessing civil penalties, I have determined that a civil penalty in the amount of \$1600.00 is appropriate for the violations at issue here.

V. CONCLUSIONS OF LAW

86. Based upon the record compiled in this proceeding, and for the reasons described above, I reach the following conclusions of law:

1. The Licensee violated Conditions 6, 7, 8 and 9 of NRC License No. 25-18304-01.
2. The Licensee violated Condition 12 of NRC License No. 25-18304-01.
3. The Licensee violated Condition 17 of NRC License No. 25-18304-01, which incorporates by reference item 11 of the Licensee's application dated August 8, 1978.
4. The Licensee violated Condition 10 of NRC License No. 25-18304-01.
5. The Licensee violated Condition 13.A(1) of NRC License No. 25-18304-01.
6. The Licensee violated 10 CFR § 71.5(a), 49 CFR § 172.403 and 49 CFR § 178.350-3.
7. These violations are properly categorized in the aggregate under the NRC Enforcement Policy as a Severity Level II problem under Supplement VI, "Fuel Cycle and Material Operations," and Supplement V, "Transportation".

28/ See Tr. 257-58 (Testimony of Keith A. Reich).

8. In accordance with the guidance of the NRC Enforcement Policy, a civil penalty of \$1600.00 is appropriate and is authorized by Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2282, and 10 CFR 2.205.
9. The Licensee should be assessed a civil penalty of \$1600.00.

VI. ORDER

87. Based on the above findings and conclusions, IT IS HEREBY ORDERED that the Licensee pay a civil penalty in the amount of One Thousand Six Hundred dollars (\$1600.00) within thirty (30) days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director of the Office of Inspection and Enforcement.

88. IT IS FURTHER ORDERED, in accordance with 10 CFR §§ 2.760, 2.762, 2.785, and 2.786 of the Commission's regulations, that this Order is effective immediately and shall constitute the final action of the Commission thirty (30) days after the date of this Order, subject to any review pursuant to the above cited rules.

Respectfully submitted,



Lillian M. Cuoco
Counsel for NRC Staff



Stephen G. Burns
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 30th day of August 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE ADMINISTRATIVE LAW JUDGE IVAN W. SMITH

In the Matter of

REICH GEO-PHYSICAL, INCORPORATED
1019 Arlington Drive
Billings, Montana 59101

)
) License No. 25-18304-01
) Docket No. 30-14821
) ASLBP No. 85-508-01-0T
) EA 84-78

CERTIFICATE OF SERVICE

I hereby certify that copies of the "NRC STAFF'S BRIEF, PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW IN THE FORM OF A PROPOSED MEMORANDUM AND ORDER" and "NRC STAFF'S PROPOSED TRANSCRIPT CORRECTIONS" in the above captioned proceeding have been served on the following by express service and U.S. mail first class (Reich Geo-Physical, Inc.), or as indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system, this 30th day of August, 1985.

Keith A. Reich, President
Reich Geo-Physical, Inc.

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(Express Service)


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Ivan W. Smith, Administrative Law
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Lillian M. Cuoco
Counsel for NRC Staff