

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Fewell Geotechnical Engineering, Ltd.
Pearl City, Hawaii

Docket No. 030-30870
License No. 53-23288-01
EA 90-196

During NRC inspections conducted on October 4, 1990 and from October 23 to November 8, 1990, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

I. Incomplete and Inaccurate Information

10 CFR 30.9(a) requires, in part, that information provided to the Commission by licensees shall be complete and accurate in all material respects.

Contrary to the above, when interviewed by NRC personnel on October 25 and November 1, 1990, a licensee radiographer provided false information to NRC personnel as evidenced by the following examples:

- A. By stating that he never allowed any other persons inside the restricted area while a source was exposed during radiographic operations on October 23, 1990 at a pipeline job site in Campbell Industrial Park (CIP), Hawaii. Contrary to the radiographer's statement, during licensed radiography on October 23, 1990 at the CIP job site, NRC personnel observed the radiographer exposing a 54 curie iridium-192 source while two helpers and four other non-radiographer personnel entered the 2 mR/hr bounded restricted area. Although five of the unauthorized personnel were in direct view of the radiographer, the radiographer made no effort to prevent entry of the unauthorized personnel into the restricted area, or to warn personnel to immediately leave the area, or to retract the exposed source.
- B. By stating that and by demonstrating how he had locked the source in the shielded position of the exposure device between source exposures during radiography on October 25, 1990 at the CIP job site. Contrary to the radiographer's statement and demonstration, during licensed radiography on October 25, 1990 at the CIP job site, NRC personnel observed that the radiographer had repeatedly failed to lock or secure the sealed source in the shielded position of the exposure device after returning the source to that position.
- C. By stating that and by demonstrating how he had carried a survey meter and always conducted surveys of the exposure device and source guide tube during radiography on October 23 and 25, 1990 at the CIP job site. Contrary to the radiographer's statement, during licensed radiography on October 23 and 25, 1990 at the CIP job site, NRC personnel observed

that the radiographer had repeatedly failed to carry a survey meter and survey the exposure device and guide tube to determine that the source was returned to its shielded position inside the exposure device after each of several source exposures.

These statements were material in that they related directly to compliance with NRC requirements.

This is a Severity Level II violation (Supplement VII).
Civil Penalty - \$8,000.

II. Radiation Safety Violations

A. License Condition 15 requires in part that the licensee conduct its program in accordance with the statements, representations, and procedures included in the application dated October 24, 1988 ("Application") and letter dated January 13, 1989 ("Application Letter").

1. Section IV, Paragraph 2.5, of the Operating and Emergency Procedures ("OEP"), included with the Application and the Application Letter, requires licensee personnel to conduct a survey to establish the 2 mR/hr radiation (restricted area) boundary at the start of each radiographic operation.

Contrary to the above, at the time of the inspection on October 25, 1990, a licensee radiographer failed to conduct radiation surveys to establish the 2 mR/hr restricted area boundary during radiography at Campbell Industrial Park (CIP), Hawaii.

2. OEP Section I, Paragraph 5.0, and OEP Section IV, Paragraph 2.5, require that only radiographers and assistant radiographers be permitted inside the 2 mR/hr boundary of the restricted area and that the licensee maintain surveillance to prevent unauthorized entry into the radiation area.

Contrary to the above, on October 23, 1990, a licensee radiographer did not prevent the unauthorized entry of six non-radiographer personnel into the 2 mR/hr bounded restricted area during radiographic exposures using a 54 curie iridium-192 source at the CIP jobsite.

3. OEP Section IV, Paragraph 2.6, included with the Application Letter, requires radiography personnel to check the readings of their dosimeters immediately after surveying and locking the exposure device following each radiographic source exposure.

Contrary to the above, during the inspection on October 23 and 25, 1990, a licensee radiographer failed to check the reading of his dosimeter following each of several radiographic source exposures at the CIP jobsite.

- B. 10 CFR 34.22(a) requires, in part, that during radiographic operations, the sealed source assembly be secured in the shielded position each time the source is returned to that position.

Contrary to the above, on October 25, 1990, a licensee radiographer did not secure the sealed source assembly in the shielded position of the exposure device after returning the source to that position on four occasions during radiography at the CIP jobsite.

- C. 10 CFR 34.43(b) requires the licensee to ensure that a survey with a calibrated and operable radiation survey instrument is made after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The survey must include the entire circumference of the radiographic exposure device and any source guide tube.

Contrary to the above, on October 23 and 25, 1990, a licensee radiographer did not conduct radiation surveys after each of several radiographic source exposures to determine that the source had been returned to its shielded position inside the exposure device during radiography at the CIP jobsite.

- D. 10 CFR 34.42 requires, with exceptions not here applicable, that licensees conspicuously post areas in which they are performing radiography with "Caution Radiation Area" and "Caution High Radiation Area" signs, as required by 10 CFR 20.203(b) and (c)(1).

License Condition 15 requires, in part, that the licensee conduct its program in accordance with the statements, representations, and procedures included with the Application and the Application Letter.

OEP Section IV, Paragraph 2.2, included with the Application and the Application Letter, requires the licensee to establish the boundary of the restricted area with ropes and radiation area signs.

Contrary to the above, on October 23 and 25, 1990, the licensee failed to post "Caution Radiation Area" signs at most of the restricted area boundary, and failed to rope off any portion of that boundary during radiography at the CIP jobsite. Also contrary to the above, the licensee did not conspicuously post "Caution High Radiation Area" signs in that these signs could not be read by persons entering the high radiation area from all directions.

- E. License Condition 16 authorizes the licensee to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material". 10 CFR 71.5(a) requires each licensee who transports licensed material outside of the confines of its plant or other place of use to comply with the applicable requirements of 49 CFR Parts 170 through 189.

49 CFR 172.403 requires appropriate "Radioactive" category labels that identify the activity and radioactive contents of packages containing radioactive material. Determination of the proper label is based on the radiation dose rates at the surface and at one meter (transport index) from the package.

Contrary to the above, on October 25, 1990, a radiographic exposure device containing a 54 curie iridium-192 sealed source was transported by a licensee radiographer to the CIP jobsite without any "Radioactive" category labels.

- F. License Condition 15 requires in part that the licensee conduct its program in accordance with the statements, representations, and procedures included in the application dated October 24, 1988 ("Application") and letter dated January 13, 1989 ("Application Letter").

Paragraph 2.2 of the "Safety Program", included with the Application and the Application Letter, requires an audit of the radiation safety program once every six months.

Contrary to the above, as of October 25, 1990, the licensee had not conducted audits of the radiation safety program since issuance of the license on January 26, 1989.

- G. 10 CFR 34.11(d)(1) requires the licensee to have an inspection program that requires observations of the performance of each radiographer and radiographer's assistant during an actual radiographic operation at intervals not to exceed three months.

License Condition 15 incorporates in License No. 53-23288-01 the inspection program satisfying the requirements of 10 CFR 34.11(d)(1), as submitted in the Application and Application Letter.

Paragraph 2.1 of the "Safety Program," included with the Application and Application Letter, requires the licensee to conduct audits of each radiographer at least once each calendar quarter and not to exceed three months.

Contrary to the above, the licensee had not audited the performance of an individual radiographer conducting radiographic operations between February 10, 1990 and June 1, 1990, an interval exceeding three months.

- H. 10 CFR 34.33(c) requires that pocket dosimeters be checked by the licensee at intervals not to exceed one year for correct response to radiation.

Contrary to the above, from August 16, 1989 to October 4, 1990, an interval exceeding one year, pocket dosimeters were not checked for correct response to radiation.

- I. 10 CFR 34.24 requires in part the calibration of each survey instrument used to conduct physical radiation surveys required by 10 CFR Parts 20 and 34 and requires a record to be maintained of the date and results of each calibration for three years after the date of calibration.

Contrary to the above, as of October 4, 1990, the licensee failed to maintain a record showing the date and results of calibration of the survey instrument that was used for conducting radiation surveys during radiography on April 4-10, 1990.

- J. 10 CFR 34.33(b) requires that pocket dosimeters be read and exposures recorded daily.

Contrary to the above, on July 16, 1990 and on August 27, 1990, a licensee radiographer did not record his pocket dosimeter readings.

- K. 10 CFR 34.26 requires, in part, that the licensee maintain, for three years, records of quarterly physical inventories that include the quantities and kinds of byproduct material, location of sealed sources, and the date of the inventory.

Contrary to the above, at the time of the inspection on October 4, 1990, the licensee had not maintained records of sealed source physical inventories that were conducted on February 9, 1990 and June 27, 1990.

- L. 10 CFR 34.43(d) requires the licensee to ensure that a record of the storage survey required by 10 CFR 34.43(c) is retained for three years when that storage survey is the last one performed in the work day.

Contrary to the above, at the time of the inspection on October 4, 1990, the licensee had not retained records of the last storage survey of the radiographic exposure device following radiography on August 27, 1990.

- M. 10 CFR 34.27 requires, in part, that each licensee maintain current utilization logs, which shall be kept available for three years from the date of the recorded events, for inspection by the Commission, at the address specified in the license, showing for each sealed source: the make and model number of the radiographic exposure device or storage container in which the sealed source is located; the identity of the radiographer to whom assigned; and the plant or site where used and dates of use.

Contrary to the above, as of October 4, 1990, the licensee did not maintain required utilization logs in Pearl City, Hawaii, of changes of sealed sources in exposure devices occurring on approximately March 14, 1990 and August 29, 1990.

- N. 10 CFR 20.407(b), with exceptions not here applicable, requires licensees to submit to the Commission, within the first quarter of each calendar year, a report of exposures recorded for individuals under a licensed program for the preceding calendar year.

Contrary to the above, as of October 4, 1990, the licensee had not submitted the required report for calendar year 1989.

This is a Severity Level II problem (Supplements IV, V, and VI).
Cumulative Civil Penalty - \$12,000 (assessed \$1,350 each for Violations A.1., A.2., A.3., B., C., D., F., and G.; \$500 for Violation E., and \$100 each for Violations H., I., J., K., L., M., and N.)

Pursuant to the provisions of 10 CFR 2.201, Fewell Geotechnical Engineering, Ltd. (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalties (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalties by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the cumulative amount of the civil penalties, or may protest imposition of the civil penalties in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalties will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation," and may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalties.

Notice of Violation

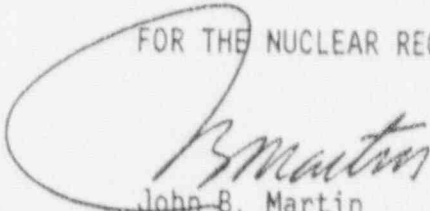
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In requesting mitigation of the proposed penalties, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1990) should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing civil penalties.

Upon failure to pay any civil penalties due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The response noted above (Reply to Notice of Violation, letter with payment of civil penalties, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region V, 1450 Maria Lane, Walnut Creek, California, 94596.

FOR THE NUCLEAR REGULATORY COMMISSION



John B. Martin
Regional Administrator

Dated at Walnut Creek, California
this 7 day of February 1991