Appendix

NOTICE OF VIOLATION

MQS Inspection, Incorporated License No. 12-00622-07

As a result of the inspection conducted during the period from September 7, 1984 to July 9, 1985, and in accordance with the General Policy and Procedure for NRC Enforcement Action, (10 CFR Part 2, Appendix C), the following violations were identified:

1. 10 CFR 34.29(b) requires that each entrance used for personnel access to the high radiation area in a permanent radiographic installation have both visible and audible signals to warn of the presence of radiation. The visible signal must be actuated by radiation whenever the source is exposed and the audible signal must be actuated when an attempt is made to enter the installation while the source is exposed.

   Contrary to the above, on October 17, 1984, the permanent radiographic installation located in the licensee's Trevose, Pennsylvania, facility did not have the required warning signals. In Room No. 1, the audible signal was not operable, and in Room No. 2, both the audible and visual signal could be defeated by switching a switch to the off position.

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

2. 10 CFR 34.41 requires that during each radiographic operation, the radiographer or radiographer's assistant maintain direct surveillance of the operation to protect against unauthorized entry into a high radiation area.

   Contrary to the above, on October 18, 1984, at a field site in Alpha, New Jersey, direct surveillance over a radiographic operation was not maintained.

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

3. 10 CFR 34.43(b) requires that a physical radiation survey be made after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The entire circumference of the radiographic exposure device must be surveyed and, if the device has a source guide tube, the survey must include the entire length of the guide tube.

   Contrary to the above, on October 17, 1984, a radiographer at the Trevose, Pennsylvania, facility failed to perform a survey that was adequate to determine that the sealed source had returned to its shielded position. A survey which was intended to meet this requirement was

performed, but was inadequate in that it did not include the entire circumference of the exposure device and the entire length of the guide tube.

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

4. 10 CFR 34.33(a) requires that pocket dosimeters be recharged at the start of each shift.

Contrary to the above, as of September 7, 1984, pocket dosimeters used at the Indiana, Pennsylvania, field site were not recharged at the start of each shift.

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

5. License Condition No. 19 requires that licensed material be possessed and used in accordance with statements, representations, and procedures contained in application dated July 28, 1980; letters dated June 10, 1981, August 21, 1981 and September 16, 1981; applications dated January 8, 1982, April 2, 1982, April 29, 1982 as amended June 16, 1982; and letters dated September 27, 1982, July 29, 1983, September 16, 1983, April 18, 1984 and June 12, 1984. Section 30.J.3(4.1) of the Safety Manual that was submitted in support of the application dated July 20, 1980, requires that survey instruments be calibrated by a vendor approved by the licensee's Corporate Radiation Safety Officer.

Contrary to this requirement, the licensee's Corporate Radiation Safety Officer failed to approve a vendor who calibrated survey instruments used at the licensee's Madison Heights, Michigan facility. Specifically, survey instruments used at that facility were calibrated at the proper intervals during the period from July 11, 1983 to January 11, 1985 by a vendor who was not approved by the licensee's Corporate Radiation Safety Officer until June 26, 1985.

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

6. License Condition No. 19 requires that licensed material be possessed and used in accordance with statements, representations, and procedures contained in application dated July 28, 1980; letters dated June 10, 1981, August 21, 1981 and September 16, 1981; applications dated January 8, 1982, April 2, 1982, April 29, 1982 as amended June 16, 1982; and letters dated September 27, 1982, July 29, 1983, September 16, 1983, April 18, 1984 and June 12, 1984. Section 30.J.2(2.1) of the Radiation Safety Manual submitted with the application dated July 28, 1980 requires the Lab/Project Managers to be responsible for conducting refresher training for all radiographers and radiographer's assistants under their supervision at quarterly intervals.

Contrary to this requirement, the Project Manager at the licensee's Cleveland, Ohio, facility failed to conduct a refresher training session during the first quarter of 1985, Specifically, refresher training was not performed during the period from December 21, 1984 to March 19, 1985.

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

7. License Condition No. 19 requires that licensed material be possessed and used in accordance with statements, representations, and procedures contained in application dated July 28, 1980; letters dated June 10, 1981, August 21, 1981 and September 16, 1981; applications dated January 8, 1982, April 2, 1982, April 29, 1982 as amended June 16, 1982; and letters dated September 27, 1982, July 29, 1983, September 16, 1983, April 18, 1984 and June 12, 1984. Section 30.G.5(3.4.2) of the Radiation Safety Manual submitted with the application dated July 28, 1980 and letter dated August 21, 1981 require that personnel audits and inspections be performed of each radiographer and radiographer's assistant at three month intervals. Section 30.G.5(3.2.2) requires each Lab or project to be audited at least annually. Section 30.G.6(3.2.1) requires written corrective actions when violations are reported, and Section 30.G.6(3.7) requires the Radiation Safety Officer to schedule a re-audit to determine effectiveness of corrective measures.

Contrary to the above, audits were not performed on four radiographers employed at the licensee's Milwaukee, Wisconsin facility during the period of June 15, 1984 to November 28, 1984, a period exceeding three months, records were not maintained at the Wood River, Illinois facility of an audit performed during the first quarter of 1985 of a radiographer employed at that facility, and an annual audit No. 6061-84 dated April 13, 1984 performed at the licensee's Milwaukee, Wisconsin facility had no written corrective actions prepared and approved by the Radiation Safety Officer, and no re-audit had been performed or scheduled up to the day of the inspection, May 6, 1984.

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

8. 10 CFR 34.29(b) requires that each entrance used for personnel access to the high radiation area in a permanent radiographic installation have both visible and audible signals to warn of the presence of radiation. The visible signal must be actuated by radiation whenever the source is exposed and the audible signal must be actuated when an attempt is made to enter the installation while the source is exposed.

Contrary to the above, on July 9, 1985, the permanent radiographic installation located in the licensee's Cleveland, Ohio, facility did not have the proper warning signals. Specifically, the audible signal was operating when the door to the facility was open, and continued to operate when the door was closed and while the source was exposed.

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

9. 10 CFR 34.29(c) requires that the audible alarm system used at the entrance of permanent radiographic installation be tested at intervals not to exceed three months, and that records of the tests be maintained for two years.

Contrary to this requirement, the licensee failed to maintain records of the audible alarm tests performed since December 29, 1983 at the Milwaukee, Wisconsin facility.

This is a Severity Level V violation (Supplement VI).

10. 10 CFR 34.26 requires that each licensee conduct a quarterly inventory to account for all sealed sources and to maintain records of the inventories for inspection by the Commission.

Contrary to this requirement, as of the day of the inspection, May 6, 1985, the licensee failed to perform a quarterly inventory to account for all sealed sources possessed and used at the Milwaukee, Wisconsin facility since March 21, 1984.

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

11. 10 CFR 34.25(b) requires that the licensee test each sealed source for leakage at intervals not to exceed six months.

Contrary to this requirement, as of the day of the inspection, a leak test had not been performed on the licensee's cobalt-60 source located at the Milwaukee, Wisconsin facility, Serial No. 1426 since December 29, 1983, an interval greater than six months.

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

12. 10 CFR 34.33(c) requires that pocket dosimeters be checked at intervals not to exceed one year for correct response to radiation.

Contrary to this requirement, as of the day of the inspection, May 6, 1985, the licensee failed to perform the required check for correct response to radiation on pocket dosimeters used at the Milwaukee, Wisconsin, facility since December 29, 1983.

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

With respect to items 5 and 6, the inspection showed that action had been taken to correct the identified violations and to prevent recurrence. Consequently, no reply to these items is required and we have no further questions regarding this matter. With respect to the other items, pursuant to the provisions of 10 CFR 2.201, you are required to submit to this

office within thirty days of the date of this Notice a written statement or explanation in reply, including for each violation: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid violation and (3) the date when full compliance will be achieved. Consideration may be given to extending your response time for good cause shown.

OCT 2 - 1985

Dated

D. G. Wiedeman, Chief
Nuclear Materials Safety Section 1