APPENDIX A

NOTICE OF VIOLATION

Union Carbide Corporation Docket No. 70-687

Based on the results of an NRC inspection conducted on July 11-13, 1979, it appears that certain of your activities were not conducted in full compliance with NRC regulations and the conditions of your license as indicated below. Items A, B, C and D are infractions. Items E, F, and G are deficiencies:

A. Item 14 of Amendment 1 to Special Nuclear Material License No. SNM-639 states, "...the licensee shall post all storage and use locations with criticality safety signs which indicate the maximum quantity of special nuclear material that is authorized at each location and the actual amount that is present at each location."

(1) Contrary to the above: On July 12, 1979, the criticality safety sign posted at the Solution Lab in the Plating Area on the second floor of the Hot Lab Building indicated zero grams of Uranium-235 at this location, when in fact approximately 325 grams of Uranium-235 were being processed in the Solution Lab according to a licensee representative.

(2) Contrary to the above, on July 11, 1979, a fuel storage cabinet in the Plating Area on the second floor of the Hot Lab Building was not posted with a criticality safety sign indicating the actual amount of special nuclear material present. According to a licensee representative, approximately 85 grams of Uranium-235 were in the fuel storage cabinet.

B. 10 CFR 20.102(b) states, "Before permitting any individual in a restricted area to receive exposure to radiation in excess of the limits specified in paragraph (a) of 20.101, each licensee shall:

(1) Obtain a certificate on Form NRC-4, or on a clear and legible record containing all the information required in that form, signed by the individual showing each period of time after the individual attained the age of 18 in which the individual received an occupational dose of radiation; and,

(2) Calculate on Form NRC-4 in accordance with the instructions appearing therein, or on a clear and legible record containing all the information required by the form, the previously accumulated occupational dose received by the individual and the additional dose allowed for that individual under 10 CFR 20.101(b)."

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Contrary to the above, an employee was permitted to exceed the 10 CFR 20.101 whole body limit during the first quarter of 1978, but certain information required by Form NRC-4 had not been obtained before permitting the exposure. The licensee had not determined the following:

(1). Previous employment involving radiation exposure.

(2). Permissible accumulated dose.

(3). Total exposure to date.

(4). Unused part of permissible accumulated dose.

C. Condition 9 of Special Nuclear Material License No. SNM-639 incorporates a letter dated June 13, 1973. On Page 1, Item 2, Personnel Monitoring, of the June 13, 1973 letter, it states, "Urinalyses...on all personnel working with radioactive materials are made on a routine basis at least once each year".

Contrary to the above, urinalyses were not performed on at least twelve employees, for the presence of Uranium-235, during 1978.

D. Condition 9 of Special Nuclear Material License No. SNM-639 incorporates a letter dated June 13, 1973. On Page 1, Item 3, Radiation detection and monitoring, of the June 13, 1973 letter, it states, "Portable radiation detection equipment such as cutie-pies and G-M survey meters and alpha detectors are located at various points in the area and a Hand and Foot Counter is near the main exit from the Hot Lab. It is used by visitors and personnel before going out to lunch or leaving the building".

Contrary to the above, on July 11, 1979, a portable alpha detector was not available as one exited the Plating Area on the second floor of the Hot Lab Building so that one could monitor his clothing as he exited the area. Also, there was no alpha monitoring capability near the exit from the Hot Lab throughout this inspection.

E. 10 CFR 20.203(e) states "each area or room in which licensed material is used or stored and which contains any radioactive material (other than natural uranium or thorium) in an amount exceeding 10 times the quantity of such material specified in Appendix C of this part shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: "Caution - Radioactive Material(s)".

Contrary to the above, the Old Solution Make-Up Lab in the Plating Area on the second floor of the Hot Lab Building contained approximately 400 microcuries of Uranium-235 on July 11, 1979, and the Lab was not posted as required.

F. 10 CFR 20.203(f) states "each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents." A label required pursuant to the above shall bear the radiation caution symbol and the words "CAUTION, Radioactive Material" or "Danger, Radioactive Material".

Contrary to the above, on July 11, 1979, the fuel storage cabinet in the Plating Area on the second floor of the Hot Lab contained approximately 200 microcuries of Uranium-235 and the cabinet was not posted as required.

G. 10 CFR 20.401(b) states, "Each licensee shall maintain records in the same units used in this part, showing the results of surveys required by 10 CFR 20.201(b). 10 CFR 20.201(b) requires the licensee to perform such surveys as may be necessary to comply with the regulations, including 10 CFR 20.106 which specifies limits for radioactivity in effluents to unrestricted areas.

Contrary to the above, gaseous effluents (stack sample) records were not maintained in the same units as used in 10 CFR 20. 10 CFR 20 requires the results to be reported in microcuries per milliliter of air for these types of samples. The licensee maintained the stack sample results in counts per minute during the period of March 30, 1979 through June, 1979.