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APR 17 1985

Edlow International Company
ATTN: Mr. Jack Edlow
President
1815 H Street, N.W. Suite 910
Washington, DC 20006

Reference: Your Application Dated January 23, 1985 for Renewal of NRC License
Number SMC-1377

Gentlemen:

As you will recall, John Hickey of the NRC staff and I visited your facility on February 25, 1985. This visit has given us insight into the review of your application. In order to complete our review, however, we need the additional information listed below. As is the case for your current license, all statements, representations, and commitments provided in your response will become part of your renewal application, and will be incorporated by reference into your license as requirements you must meet.

1. Place of Use and Storage of UF₆ and U₃O₈

- a. Based on our review of the material submitted in support of your application and discussion with your staff, no "indoor" storage of UF₆ or U₃O₈ is permitted. The following is our understanding of your "outdoor" storage policies and practices:
 1. Natural UF₆ cylinders will be stored only in Compound No. 2, a distance of at least 300 feet from the railroad adjacent to the site.
 2. Natural U₃O₈ containers will be stored only in Compound No. 1.

Please confirm this in writing.

- b. Please indicate what fire protection measures you have taken to prevent a fire from affecting UF₆ cylinders stored in Compound No. 2 (i.e., restriction of storage of flammable equipment, combustible materials or explosive materials in the general vicinity).
- c. Please indicate what type of valve protection measures you have provided for the UF₆ cylinders while they are in storage.

2. Emergency Procedures and Equipment

- a. Please describe the capability and quantity of respiratory protection equipment which is available to emergency workers in the event of a leaking UF₆ cylinder.

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- b. Page 2 of your submittal indicates that the East St. Louis Fire Department will be notified in the event of a fire. Please indicate what training and retraining programs have been established to familiarize the Fire Department with the radioactive material and with the site.
- c. Indicate what measures have been established for promptly notifying the NRC Region III office in the event of an emergency at the facility (i.e., ruptured UF_6 cylinder).
- d. Page 4 of your submittal indicates a repair kit for repairing leaking UF_6 cylinders is available. However, during the NRC site visit of February 25, 1985, the equipment for the kit was not all available in a central location (i.e., suitcase). Please indicate your procedures for maintaining all repair kit materials in one centralized location.
- e. During the NRC site visit of February 25, 1985, no CO_2 fire extinguishers were available for freeze sealing a UF_6 leak. Please indicate how many CO_2 units will be available onsite and where they will be located.
- f. Your emergency procedures for monitoring for contamination as a result of damage to a U_3O_8 drum (page 2 of Supplement No. 3 of your submittal) indicate only the use of a geiger counter. Please indicate how this procedure is as effective as utilizing a smear test in detecting U_3O_8 contamination. If the smear test is more effective, please modify your procedures to incorporate this test.
- g. Describe the procedures and frequency used for testing the performance of the site security system utilized to initiate emergency response.

3. Authorized Users and Individuals Responsible for the Radiation Protection Program

- a. Your application lists several individuals as supervisory personnel with responsibilities for your day-to-day and emergency response program. Please indicate the training these individuals have had in basic radiation protection techniques and their experience in evaluating and directing the response to situations which could arise from your use of radioactive material (e.g., leaking UF_6 cylinders, fire in areas where radioactive material is stored, spillage of radioactive material, etc.).
- b. Please specify the name and qualifications of your site manager. Your February 11, 1985, letter only specified this position as a title. In addition, please describe your provisions for an alternate qualified site manager when the primary site manager is unavailable.

- c. Describe the Radiation Safety Officer's (RSO) authority in the organization to ensure that he will be able to terminate immediately any activity that is found to be a threat to health and safety or to the environment. In addition, please describe the RSO's availability in response to emergencies and the provisions that exist for an alternate RSO when he is unavailable.

4. Instrumentation

We note that your radiation safety program is largely dependent on a functional and calibrated survey meter and that it appears from your application that you have only one such meter available. Please describe your provisions for an alternate survey meter during times when your meter is inoperable or sent out for calibration.

5. Training Programs

Your application indicates that all warehouse personnel will be trained in accordance with 10 CFR 19.12. Please indicate their frequency of retraining.

6. Receipt Procedures and Smear Testing

Your procedures include the use of an Eberline E-120 geiger counter to analyze smears taken to assess possible leakage of UF_6 cylinders with an "action level" of 3000 cpm. Please specify the sensitivity of the Eberline counter to detect the type and level of contamination expected, the standard source utilized to calibrate the counter at the time of the analysis, and the method used to convert counter readings to units of activity utilizing this standard.

7. Inventory of Material

Please specify the procedures used for conducting inventories of radioactive material while located at the East St. Louis site.

8. Records

Please specify the documents that will be maintained at the site to ensure compliance with NRC requirements (i.e., NRC license, operating and emergency procedures, applicable regulations, surveys, smear tests, and inventories).

9. Environmental Information

As you know, no environmental review for your facility was performed when your license was issued in 1980. Since that time, 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," has been completely revised by NRC. The revision

reflects an NRC policy which places greater emphasis on careful review of the environmental significance of licensing actions. We note that your facility is located in a densely populated area, and that a large accidental release of radioactive material in this area could have significant impact. The fire which occurred at your facility in 1983 could have resulted in such a large release. Although you took corrective action after the fire, we believe it is necessary to closely review the suitability of the site for your activity. Therefore, pursuant to 10 CFR 51.41, please provide the information specified below for our review. Though 10 CFR 51.45, "Environmental Report," is written principally with new applicants in mind, it does apply to you, and you may wish to refer to it as background. You may excerpt information from documents already submitted, if you find this appropriate.

- a. Provide a map and description of the site including (1) the location of adjacent buildings and nearby residences, (2) nearby population centers such as office buildings, schools, churches, arenas, stadiums, etc., (3) the exact routes of nearby roads, the railroad, and the interstate highway, and (4) the location of buildings or facilities which could present evacuation problems in the event of a large release of radioactive material. Describe the grading of the site in terms of whether any liquid hazardous material would tend to flow toward the radioactive material.
- b. Discuss the alternatives to your activity and site from the following aspects:
 1. The need for your activity from an industry standpoint.
 2. The consequences to the availability of UF_6 and U_3O_8 to the industry if these materials are not stored at your site.
 3. The necessity for these materials to be stored at all. If so, the necessity for storage at a specific location.
 4. The alternatives for implementing your activity in a manner other than it is now (e.g., techniques you could use to reduce or avoid exposure of material to adverse environmental conditions, intrusion, situations where UF_6 or yellow cake may be released to the environment such as accidental opening or breaking of UF_6 cylinder valves or seals to storage drums, etc.).
 5. The alternatives you have in relocating the site of your activity.
 6. The costs and benefits to you, the community in which you are located, and to your industry, if you ceased your activity or relocated it.

- c. Provide an accident analysis, including the risks, environmental impacts, radiological and non-radiological consequences of a tornado, earthquake, flood, major fire, or major explosion at your site. Include consideration of transportation incidents such as might be caused by a train or highway vehicle carrying hazardous material near your site.
- d. Please specify any other Federal, State or local permits or requirements which are required for your operation, and provide the status of the permits and compliance with the requirements.

If you have any questions or require clarification on any of the information stated above, you may contact us at (312) 790-5625.

We will continue our review of your application upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 78141.

Sincerely,

W. L. Axelson
William L. Axelson, Chief
Nuclear Materials Safety and
Safeguards Branch

bcc: J. Hind, RIII
B. Davis, RIII
P. Bollweg, OGC

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