

SEP 1 1982

DOCKET NOS.: 70-2964 and 70-2965
APPLICANT: Consumers Power Company, Jackson, Michigan
FACILITIES: Midland Power Plant, Units 1 and 2, Midland, Michigan
SUBJECT: SAFETY EVALUATION REPORT, APPLICATION DATED JUNE 22, 1982
AND SUPPLEMENT DATED AUGUST 12, 1982 FOR SPECIAL NUCLEAR
MATERIALS LICENSES.

I. Introduction

The applicant, Consumers Power Company, has requested authorization to receive 10 fission chambers, each containing 4 grams of U-235, for eventual installation in Units 1 and 2 of the Midland Power Plant. The SNM licenses are requested by September 1, 1982.

The applicant has also requested authorization to receive fuel assemblies containing U-235 for eventual use in Units 1 and 2. Because the authorization is not needed until February 1, 1983, this request will be evaluated at a later date.

Consumers Power Company currently holds NRC Materials License No. 21-08606-09 which authorizes possession of over 6,000 curies of byproduct material.

II. Discussion

Each fission chamber is manufactured as a sealed source by Gamma-Metrics, an Agreement State of California licensee. Each chamber will contain 4 grams of U-235 contained in U₃O₈. The uranium is enriched to 93% in the U-235 isotope.

Until installed adjacent to the neutron vessel, the sealed sources (fission chambers) will be stored in a controlled access area which is controlled by the Radiation Protection Supervisor or a designated alternate. When a trained authorized individual is not in attendance, the area shall be locked. When installed near the reactor vessel, the chambers will be relatively inaccessible. Four chambers will be installed in each unit.

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The possession, receipt, storage and use of the sealed sources will be in accordance with Exhibit D-III, Radiation Control in the application. It is recommended that the following condition be included in the license:

The licensee shall follow the radiation control program in Exhibit D-III, Radiation Control, described in the application dated June 22, 1982 and modified by the supplement dated August 12, 1982.

III. Conclusion and Recommendation

The possession and installation of the sealed sources containing enriched uranium will have no adverse effect on the public health and safety or on the environment. Issuance of the two licenses is recommended, subject to the license condition above.

Original signed by:
Barry L. Serini

Barry L. Serini
Uranium Process Licensing Section
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
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Original Signed By:
W. T. Crow

Approved by:

W. T. Crow, Section Leader

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