

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

December 26, 1962

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

Subject: REPORT ON NUCLEAR FUEL SERVICES, INC.

Dear Dr. Seaborg:

At its forty-fifth meeting on December 13-15, 1962 at Oak Ridge, Tennessee, the Advisory Committee on Reactor Safeguards considered the nuclear fuel processing plant proposed by Nuclear Fuel Services, Inc. to be constructed at the state-owned, Springville site located southwest of Buffalo, New York. In its letter of October 11, 1962, the Committee commented on the suitability of the site for the proposed operations. The Committee had the benefit of oral presentations by representatives of Nuclear Fuel Services, Inc., Bechtel Corp., the AEC Regulatory Staff and its consultant, and of the reports listed.

The process to be used is a batch dissolution of fuel elements which are usually chopped into small pieces. The plant will be designed to handle a nominal throughput of 1000 kilograms of uranium per day. A variety of types of fuel with varying exposure time histories are to be processed, the upper limit of which is approximately represented by the following parameters:

Burnup	20,000 mwd/ton
Specific power	27.5 mw/ton
Irradiation time	2 years
Load factor	85 percent
Cooling time	150 days

Similar chemical processing operations have been conducted on a production basis at various Commission-owned plants for several years. A prototype fuel element chopping operation has been carried on at Oak Ridge for about three years. This experience furnishes an adequate basis for plant design.

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The Committee believes that this plant can be designed and constructed with reasonable assurance that it may be operated without undue hazard to the health and safety of the public.

Mr. K. R. Osborn did not participate in the discussions of this project.

Sincerely yours,

/s/

F. A. Gifford, Jr.
Chairman

References:

1. Application for Construction Permit & License for a Spent Fuel Processing Plant, Part A - General Information, dated July 25, 1962.
2. Safety Analysis, Spent Fuel Processing Plant, Part B - Vol. I and Vol. II, dated July 1962.
3. Letter from Scharfeld, Bechhoefer, Baron & Stambler, dated September 7, 1962, transmitting additional information to Part B.
4. Application for Construction Permit & License for a Spent Fuel Processing Plant, Part B -- Safety Analysis, Amendment No. 1, dated October 12, 1962.
5. Letter from Scharfeld, Bechhoefer, Baron & Stambler, dated October 24, 1962, transmitting seven (7) drawings referred to in Amendment No. 1.
6. Amendment No. 2 dated November 23, 1962 to Application for Construction Permit & License.