

DIAM:MM
Packet No. 50-174

JUL 12 1961

The Pennsylvania State University
University Park, Pennsylvania

Attention: Dr. E. F. Szora
Vice President for Research

Gentlemen:

Transmitted herewith is Amendment No. 1 to Facility License No. E-72 issued to The Pennsylvania State University this date. The amendment authorizes The Pennsylvania State University, as requested in its application for amendment dated May 17, 1961, to transfer thirty-four irradiated fuel elements of the University's nuclear reactor located at Cuchanot, Pennsylvania from their present location in the reactor pool to the storage pool in the hot cell area. This authority is granted for a period of sixty days, at which time or before, the fuel elements shall be returned to their original location in the reactor pool and stored as described in the University's original application for license dated September 29, 1960.

Also enclosed are copies of the related notice which has been submitted to the Office of the Federal Register for filing and publication and a related AEC hearing analysis.

Sincerely yours,

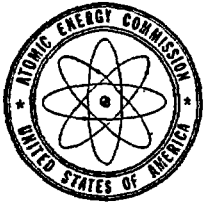
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C. G. Hanly NDMason Division of Licensing and Regulation
H. Steele

Enclosures:

1. Amendment No. 1 to License No. E-72
2. Notice to Office of the Federal Register
3. Hearing Analysis

OFFICE	DL&R	DL&R	DL&R	OGC	
SURNAME	NDMason/dk	EGCase	Director		B/g
DATE	6/26/61	7/10	7-12-61	7/16/61	



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

THE PENNSYLVANIA STATE UNIVERSITY

DOCKET NO. 50-174

AMENDMENT TO UTILIZATION FACILITY LICENSE

License No. R-72
Amendment No. 1

License No. R-72 issued to The Pennsylvania State University is hereby amended to authorize the transfer of thirty four irradiated fuel elements of the University's nuclear reactor located at Quehanna, Pennsylvania from their present location in the reactor pool to the storage pool in the hot cell area as requested in the licensee's application for amendment dated May 17, 1961. This authority is granted for a period of sixty days, at which time or before, the fuel elements shall be returned to their original location, in the reactor pool and stored as described in the licensee's original application for license dated September 29, 1960.

This amendment is effective as of the date of issuance and shall expire sixty days from that date.

FOR THE ATOMIC ENERGY COMMISSION

R. L. Kirk
Deputy Director
Division of Licensing & Regulation

Dated at Germantown, Maryland
this day of 1961.
JUL 12 1961

UNITED STATES ATOMIC ENERGY COMMISSION

THE PENNSYLVANIA STATE UNIVERSITY

DOCKET NO. 50-174

NOTICE OF ISSUANCE OF UTILIZATION FACILITY LICENSE AMENDMENT

Please take notice that the Atomic Energy Commission has issued Amendment No. 1, set forth below, to Facility License No. R-72 authorizing The Pennsylvania State University, as requested in its application for amendment dated May 17, 1961, to temporarily transfer thirty four irradiated fuel elements of the University's nuclear reactor located at Quehanna, Pennsylvania from their present location in the reactor pool to the storage pool in the hot cell area. This authority is granted for a period of sixty days, at which time or before, the fuel elements shall be returned to their original location in the reactor pool and stored as described in the licensee's original application for license dated September 29, 1960. The purpose of this temporary relocation of the fuel elements is to permit maintenance and repair of the reactor pool.

The Commission has found that the possession of the reactor and the temporary relocation of the fuel elements in accordance with the terms and conditions of the license, as amended, will not be inimical to the common defense and security or to the health and safety of the public.

The Commission has further found that prior public notice of proposed issuance of this amendment is not necessary in the public interest since the temporary relocation of the fuel elements under the license, as amended, would not present any substantial change in the hazards to the health and safety of the public from those considered and evaluated in connection with the previously approved possession of the reactor.

In accordance with the Commission's "Rules of Practice" (10 CFR 2) the Commission will direct the holding of a formal hearing on the matter of the issuance of the license amendment upon receipt of a request therefor from the licensee or an intervener within thirty days after issuance of the license amendment.

Petitions for leave to intervene and requests for a formal hearing shall be filed by mailing a copy to the Office of the Secretary, Atomic Energy Commission, Washington 25, D. C., or by delivery of a copy in person to the Office of the Secretary, Germantown, Maryland, or the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C.

For further details, see (1) the application for license amendment dated May 17, 1961 submitted by The Pennsylvania State University and (2) a hazards analysis of the proposed amendment prepared by the Division of Licensing and Regulation, both on file at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. A copy of item (2) above may be obtained at the Commission's Public Document Room, or upon request addressed to the Atomic Energy Commission, Washington 25, D. C., Attention: Director, Division of Licensing and Regulation.

FOR THE ATOMIC ENERGY COMMISSION

R. L. Kirk
Deputy Director
Division of Licensing & Regulation

Dated at Germantown, Maryland
this day of , 1961.

JUL 12 1961

THE PENNSYLVANIA STATE UNIVERSITY

DOCKET NO. 50-174

AMENDMENT TO UTILIZATION FACILITY LICENSE

License No. R-72
Amendment No. 1

License No. R-72 issued to The Pennsylvania State University is hereby amended to authorize the transfer of thirty four irradiated fuel elements of the University's nuclear reactor located at Quehanna, Pennsylvania from their present location in the reactor pool to the storage pool in the hot cell area as requested in the licensee's application for amendment dated May 17, 1961. This authority is granted for a period of sixty days, at which time or before, the fuel elements shall be returned to their original location in the reactor pool and stored as described in the licensee's original application for license dated September 29, 1960.

This amendment is effective as of the date of issuance and shall expire sixty days from that date.

FOR THE ATOMIC ENERGY COMMISSION

R. L. Kirk
Deputy Director
Division of Licensing & Regulation

Dated at Germantown, Maryland
this day of , 1961.
JUL 12 1961

HAZARDS ANALYSIS BY THE RESEARCH & POWER REACTOR SAFETY BRANCH

DIVISION OF LICENSING AND REGULATION

IN THE MATTER OF

THE PENNSYLVANIA STATE UNIVERSITY

DOCKET NO. 50-174

By a letter dated May 17, 1961 The Pennsylvania State University requested amendment of their Facility License No. R-72 to authorize transfer of thirty-four irradiated fuel elements of the University's nuclear reactor located at Quehanna, Pennsylvania from their present location in storage racks along the walls of the reactor pool to storage racks in the storage pool in the hot cell area. The authority is requested for a period of sixty days, at which time, or before, the fuel elements will be returned to their original location in the reactor pool. The purpose of this temporary relocation of the fuel elements is to effect maintenance on the reactor pool.

We have reviewed the design of the storage racks in the storage pool and find they are identical to those presently being used in the reactor pool, which position the fuel elements in a single row with 5 inches of spacing between centers. Three such racks are bolted together in a "U", with the open end connected with aluminum angle to form a rigid rectangle. Thirty-four fuel elements of this type, even in an optimum array with 5 inches of spacing between centers, will be subcritical completely submerged in water and fully reflected.

The tops of the fuel elements will be approximately twelve feet below the surface of the pool. A radioactivity monitor over the pool will be connected to a local alarm system, and periodic inspection of the stored fuel will continue as previously authorized. We believe that these design and procedural safeguards are adequate to detect any significant release of fission products from the fuel elements while they are temporarily located in the storage pool.

Two fuel elements at a time will be transferred to the storage pool in a lead filled stainless steel cask. The transfer will be conducted in accordance with written procedures and under the supervision of experienced staff members of the Curtiss-Wright Nuclear Research Laboratory with additional experienced personnel as required from The Pennsylvania State University Nuclear Reactor Facility. Health physics instruments including pocket dosimeters, film badges, G-M meters, etc. will be utilized as necessary. The same procedure will be used for returning the fuel elements to the reactor pool upon completion of the maintenance work on the reactor pool. We believe that these procedures for transfer can be accomplished as proposed without undue risk to the health and safety of the public.

Based on the foregoing, we have concluded that the thirty-four irradiated fuel elements can be moved from the reactor pool to the storage pool, stored for a period of not more than sixty days, and transferred back to the reactor pool

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without undue risk to the health and safety of the public, and that these operations do not involve any substantial change in the hazards to public health and safety from those considered and evaluated in connection with previously authorized operation of this facility.

Edson G. Case, Chief
Research & Power Reactor Safety Branch
Division of Licensing and Regulation

Date: JUL 12 1961