



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 155 TO FACILITY OPERATING LICENSE NO. NPF-21

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

NUCLEAR PROJECT NO. 2

DOCKET NO. 50-397

1.0 INTRODUCTION

By letter dated October 10, 1996, as supplemented by letter dated November 9, 1998, Washington Public Power Supply System (Supply System or the licensee) requested that a change be made to Facility Operating License No. NPF-21 to authorize the permanent storage of certain byproduct, source, and special nuclear materials at the WNP-2 site. These materials had been originally stored at the WNP-1 site and are not intended for use at WNP-2. A 10 CFR Part 46 license currently authorizes the storage of the subject material at the WNP-1 site. The WNP-2 license currently provides for use as required of these types of materials, as discussed below.

The November 9, 1998, supplemental letter provided additional clarifying information and did not change the staff's original no significant hazards consideration determination published in the Federal Register on September 23, 1998 (63 FR 50942).

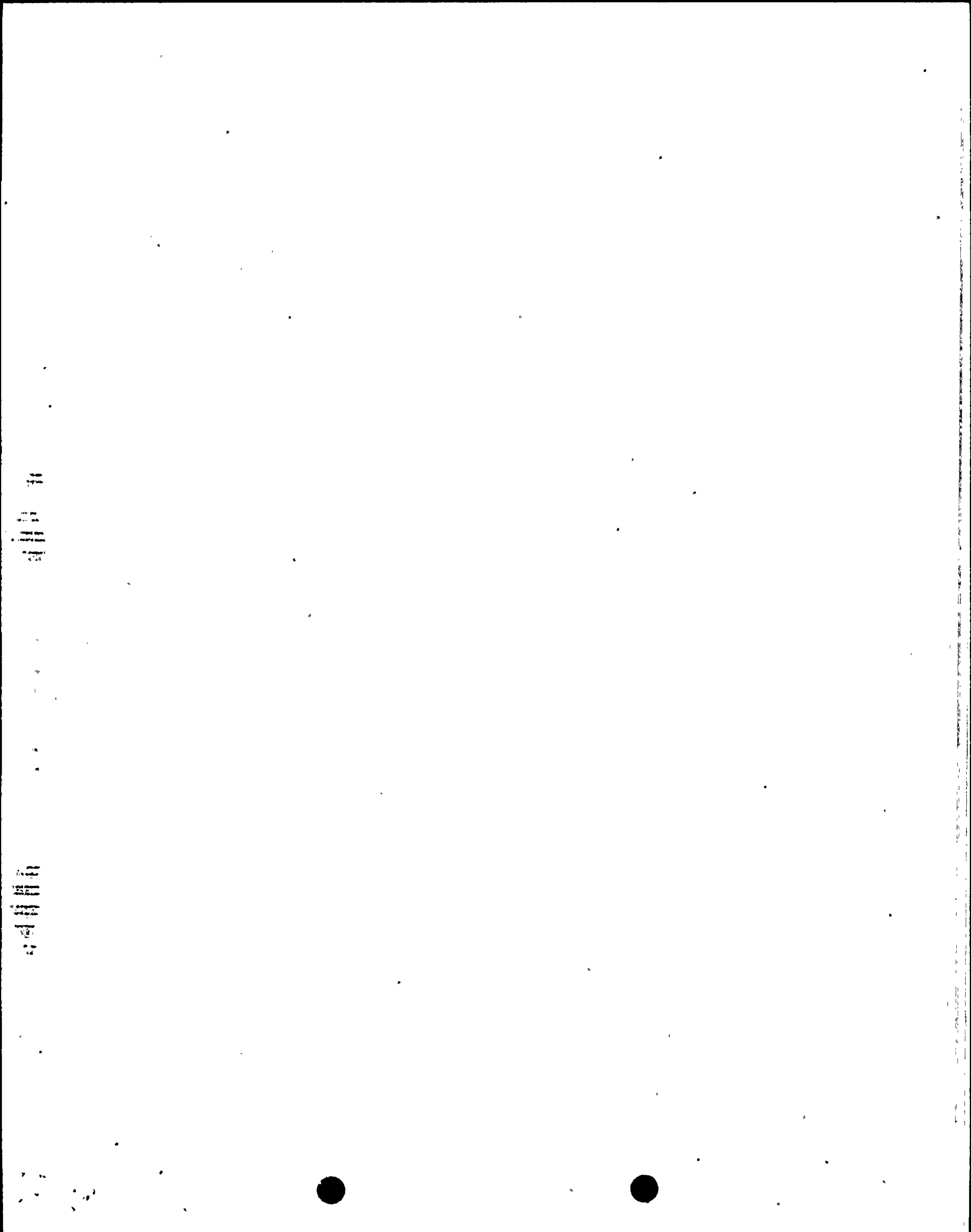
2.0 EVALUATION

Section B.3 of Facility Operating License NPF-21 for WNP-2 currently authorizes the licensee to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required. Section B.4 permits the receipt, possession, and use in amounts as required, any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analyses or instrument calibration or associated with radioactive apparatus or components. Section B.5 permits the possession, but not separation of byproduct and special nuclear material as may be produced by the operation of the facility.

The licensee proposed the addition of the following section to the license:

- (6) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to store byproduct, source, and special nuclear materials not intended for use at WPPSS Nuclear Project No. 2. The materials shall be no more than 9 sealed neutron radiation sources designed for insertion into pressurized water reactors and no more than 40 sealed

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beta radiation sources designed for use in area radiation monitors. The total inventory shall not exceed 24 microcuries of strontium-90, 20 microcuries of uranium-235, 30 curies of plutonium-238, and 3 curies of americium-241.

In its November 9, 1998, submittal, the licensee provided information on where these particular materials are being stored on the WNP-2 site. Specifically, the sources are being stored in approved containers at WNP-2. The beta radiation sources are located in an area between WEA-FU-1A and WEA-FU-1B HEPA filter units on the 487' elevation of the radwaste building. The fission detector material is enclosed in sealed units suitable for insertion into a Combustion Engineering pressurized water reactor, and is stored in a controlled inventory warehouse adjacent to the WNP-2 protected area. The source and detector storage areas are marked as radioactive materials area and are barricaded with warning signs as required by the WNP-2 Radiation Protection Program.

The licensee also stated in its November 9, 1998, submittal that the actual storage locations for the subject material may change in the future, but the source and detector storage areas will continue to be designated as radioactive material areas and barricaded with warning signs in accordance with the WNP-2 Radiation Protection Program.

The specific storage areas are located in low traffic areas. Further, all personnel working in the radwaste building and in the controlled inventory warehouse are required to be qualified radiation workers or under the direct control of a qualified radiation worker. Health physics technicians are the only staff authorized to handle these specific sources at the WNP-2 site.

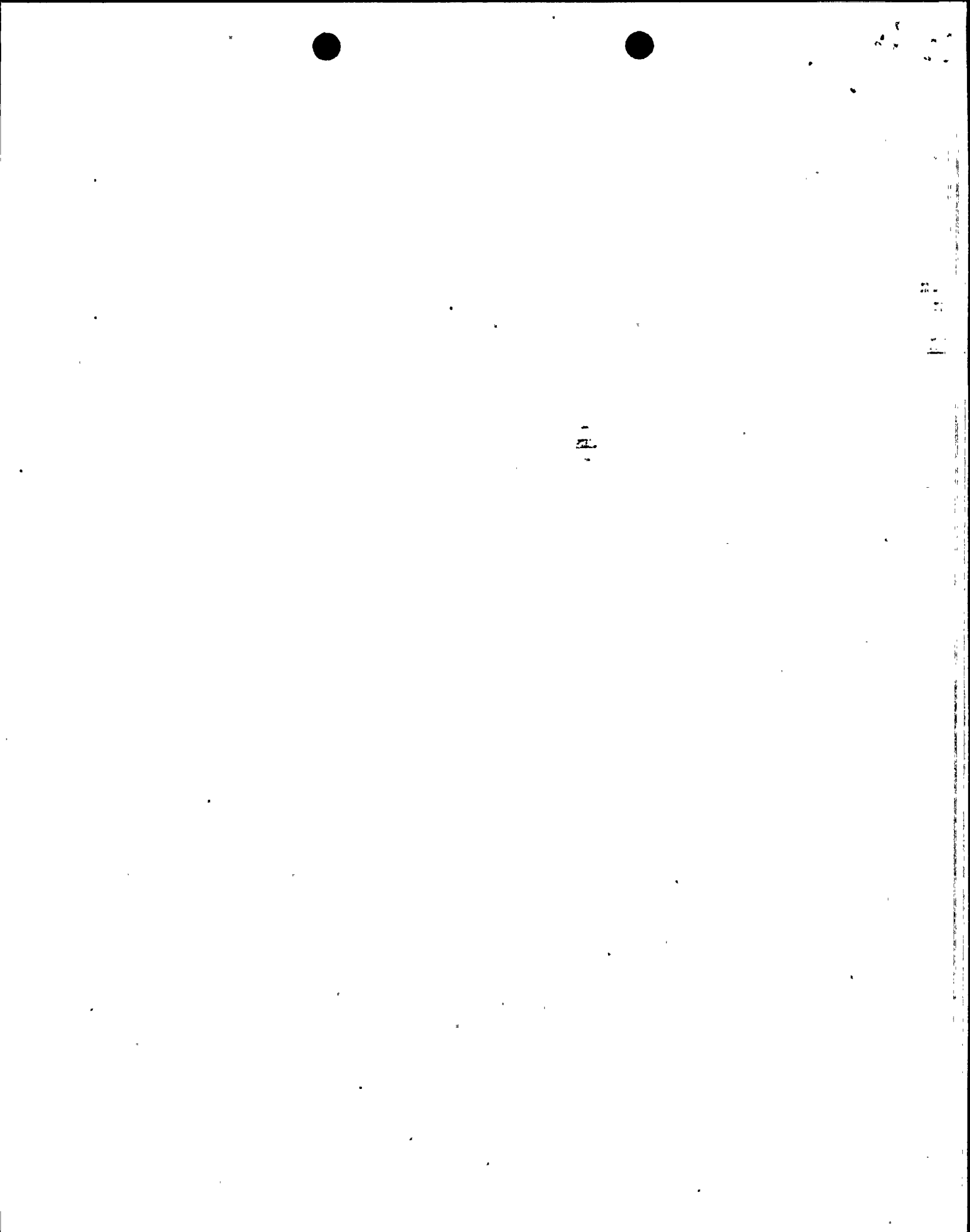
The staff acknowledges that the current radiation safety program at WNP-2 provides training and monitoring of personnel in work practices and uses thermoluminescent dosimeters (TLDs) as the monitoring method of legal record. TLDs, electronic dosimeters, and self reading pocket dosimeters are used to provide personal monitoring during all plant activities, including those which would apply to these sources.

Table 12.2-12 included in the Final Safety Analysis Report lists the special sources that are stored at the site for use at WNP-2 that have strength greater than 100 millicuries. It is expected that this table will be updated to reflect the additional sources that have been relocated from the WNP-1 site.

On the basis of the existing radiation safety program at the WNP-2 site, the method of storage and control for the sources described above being stored at the site, and the relatively small amounts of material involved, the staff finds that the proposed modification to Operating License NPF-21 authorizing the storage of byproduct, source, and special nuclear materials at the WNP-2 site to be acceptable. There is no potential impact to the health and safety of the public based on the storage of the materials.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Washington State official was notified of the proposed issuance of the amendment. The State official had no comments.



4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact was published in the Federal Register on December 24, 1998 (63 FR 71317).

Accordingly, based upon the environmental assessment, the Commission has determined that issuance of this amendment will not have a significant effect on the quality of the human environment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Chet Poslusny

Date: December 29, 1998

