

**WASHINGTON STATE  
ENERGY FACILITY SITE EVALUATION COUNCIL**

**RESOLUTION NO. 295  
ENERGY NORTHWEST DRY CASK STORAGE FACILITY**

**Nature of Action.** By letter dated May 4, 2000, Energy Northwest requested an amendment to the WNP-2 (now Columbia Generating Station) Site Certification Agreement (SCA) to allow for the construction of a Dry Cask Storage System. Energy Northwest is requesting that the project description in the WNP-2 SCA, section I.B.1, be amended to include the Spent Fuel Storage Facility under the listing of project elements.

**Background.** The proposed activity includes construction of a fenced cask storage yard and an equipment storage building. The project also includes upgrades to plant roadways for heavy loads and installation of security and utility systems. The proposed construction activity is located entirely within the area previously disturbed by plant construction. Operation of the storage facility will involve the transportation, handling, and placement of the casks at the storage site; maintenance of the cask system; security of the facility; and an ongoing monitoring program.

In combination with a pre-approved Nuclear Regulatory Commission (NRC) certified storage system (pursuant to 10 CFR Part 72), the Dry Cask Storage Facility will augment the current wet storage system by providing additional spent fuel storage capacity at the plant site. The Dry Cask Storage Facility will provide interim onsite storage until such time that the U.S. Department of Energy's geologic repository is available to receive these wastes. The facility is necessary for the continued operation as well as the decommissioning of the plant.

**Procedural Status.** EFSEC's SCA amendment procedure is governed by chapter 80.50 RCW and chapter 463-36 WAC. Pursuant to WAC 463-36-030, the Council held a public meeting on September 6, 2000, to receive comment on the proposed storage facility. Notice of that meeting was given in the Tri-City Herald and mailed to approximately 150 interested agencies or organizations.

In accordance with WAC 463-36-040, the Council is required to review whether the proposal to amend the Columbia Generating Station SCA is consistent with (1) the intention of the original SCA; (2) the applicable laws and rules; and (3) the public health, safety, and welfare (including environmental impacts). The Council's rules provide the option of approving an amendment by resolution (463-36-070) or by the Governor (463-36-080).

The Council has reviewed the request for amendment under the procedures set out in its rules and concluded that the proposed does not substantially alter the substance of any provision of the existing SCA and does not have a significant detrimental effect upon the environment. Based upon those findings as discussed below, the Council considers

construction of the Dry Cask Storage System to be a technical amendment to the Columbia SCA and through this resolution amends the SCA accordingly.

**A. Consistency with intention of original SCA.**

Under WAC 463-36-040(1), the Council must consider whether the proposed amendment is consistent with the intention of the original SCA.

The original SCA certified, to the extent authorized by state law, the construction and operation of a nuclear power plant at the project's location on the Hanford Site (SCS I.B.2). The additional authorization sought under the proposed amendment would allow the construction of a gravel roadway, metal storage building, cask storage yard, and associated security, lighting, and utility systems. These new physical features are similar to previously approved facilities found throughout the plant site and the proposed construction activity is located entirely within the area disturbed by plant construction.

In approving the construction and operation of the Columbia Generating Station in 1972, the state fully recognized that spent nuclear fuel would be stored in a wet storage system located in the reactor building. Spent fuel has been stored in the spent fuel pool since the first refueling in 1986. As noted in the Department of Health's August 10, 2000 comment letter:

The storage of spent fuel onsite is already a permitted activity and granted under the general license issued by Nuclear Regulatory Commission. The Department does not view the storage of fuel in a dry cask system to be a significant departure from the current practices allowed in the SCA.

At the time the original SCA was adopted, it was intended that the spent fuel would be turned over to the federal government. The federal government has not met its obligation to provide a repository for spent fuel. The delay has caused many nuclear power plants across the country to install dry cask storage facilities to increase the plants' capacities to store spent fuel onsite. The NRC regulates the design of dry cask storage facilities and the containers that are used for storage and transport of the spent fuel. Fuel stored in a monitored dry cask system is as safe as fuel stored in a spent fuel pool.

As noted above, it is Energy Northwest's intention to provide interim onsite storage of spent nuclear fuel in dry casks until such time that a federal geologic repository is available to receive these wastes.

The Council finds that the proposed Dry Cask Storage Facility is consistent with the intent of the existing Columbia Generating Station SCA.

## **B. Consistency with applicable laws and rules.**

Under WAC 463-36-040(2), the Council must consider applicable laws and rules, including chapter 43.21C RCW and chapter 197-11 WAC (the State Environmental Policy Act and SEPA rules), WAC 463-36-070 and –80, and pertinent federal statutes.

### 1. Consistency with SEPA.

In general, SEPA requires an agency to perform a threshold determination to determine whether a proposed action will have a significant adverse affect on the environment. After reviewing the proposed amendment to construct the storage facility and an environmental checklist submitted with the application, the Council’s responsible official for SEPA issued a Mitigated Determination of Non-Significance (DNS). In determining that the proposed action would not have a probable significant adverse impact on the environment, two mitigating conditions were cited: Emergency Plans should be amended to recognize the potential for accidental releases from the facility; and the dry cask site should be incorporated into the plant’s Radiological Environmental Monitoring Program (REMP).

The Department of Health commented on the SEPA Checklist that, “There are no radiological concerns regarding the construction of the storage yard (cement slab and auxiliary buildings) and the roadway from the plant to the storage yard.

### 2. Consistency with WAC 463-36-070 and –080.

WAC 463-36-070 provides that

...[a]n amendment which changes a technical provision or requirement within the terms of the SCA, and constitutes *no* substantial alteration of any provisions of the SCA, and is determined to have *no* detrimental effect upon the environment, shall be effective upon adoption of a council resolution. (emphasis added)

On the other hand, WAC 463-36-080 provides that

...[a]n [SCA] amendment which substantially alters the substance of any provision of the SCA or which is determined to have a significant detrimental effect upon the environment shall be effective upon the signed approval of the governor...

Based on its evaluation of the impacts associated with the proposed Dry Cask Storage Facility, the Council finds that this amendment is “technical” in nature; it can, and will be effective upon adoption of this resolution.

### 3. Consistency with federal requirements.

The U.S. Nuclear Regulatory Commission in 10 CFR Part 72 authorizes the dry cask spent fuel storage system proposed for the Columbia Generating Station. As such, state

jurisdiction over this system is pre-empted by the federal statutes and rules. Under a general license, Energy Northwest is authorized to store spent fuel in an Independent Spent Fuel Storage Installation (ISFSI). The general license requires energy Northwest to use a cask that has been certified by the NRC. The HI-STORM cask being used has received such certification. The NRC will be involved throughout the entire process of designing, constructing, and operating the cask system.

The jurisdictional authority of the NRC was addressed in a comment letter received from the state Department of Labor and Industries Chief Boiler and Pressure Vessel official, who stated that, "...these subject vessels do fall under federal control, and are exempt from the Washington Boilers and Unfired Pressure Vessels law..."

Consistent with the separate jurisdictions of the state and NRC, the Council has focused its review on those aspects of the proposal that are specific to the state's interests. These include the environmental effects of construction of the physical infrastructure and the operational aspects of the storage system that relate to the environment. The mitigating conditions cited in the SEPA determination address the state's interests for having the facility covered in utility, state and local emergency plans and ongoing radiological monitoring.

The Council's rules require it to consider whether the proposed amendment is consistent with applicable laws and rules. As cited above, the Council has examined the dry cask storage proposal against state and federal regulations and concludes that the proposed amendment is consistent with the applicable laws and rules.

### **C. Consistency with public health, safety, and welfare.**

Under WAC 463-36-040(3) and -050, the Council must consider whether the proposed amendment is consistent with public health, safety, and welfare, including environmental aspects of the public welfare.

The Council finds that the environmental effects of the storage system are few. In reaching its SEPA determination, the Council examined environmental documents prepared by the NRC that in summary found that the dry cask storage of spent nuclear fuel at civilian nuclear reactor sites, "...would not be a major Federal action significantly affecting the quality of the human environment..." (10 CFR Part 72, Subpart K).

In addition, the Council received comments from two state agencies that reinforce the conclusion that the Dry Cask Storage Facility will not endanger the public health and safety.

The Military Department, Emergency Management Division, notes that:

The fixed nuclear facility emergency plan that the state has written, in coordination with the affected counties that surround the plant, can easily include the possible hazard that the building of the dry cask storage facility might add to

the site. The NRC has determined that the environmental effects of the storage system are few. Leaking into the ground water, which has been a problem with the storage of materials on the Hanford Reservation, is impossible, as there are no liquid or gaseous releases due to the vacuumed dried process of the materials and the fact that the storage canisters are welded shut. The state will continue to monitor the progress of this proposed addition to the Site Certification Agreement.

The Department of Health notes that:

Adding the specific reference to the fuel storage in the SCA allows the State the opportunity to specifically review the process and assure that the public health and the environment is not endangered because of this activity. The Department already initiated baseline monitoring of the proposed site and review of documents related to spent storage facilities and the storage system chosen by Energy Northwest. The Department will be working with the Energy Northwest staff to establish appropriate environmental monitoring that will assure the facility does not impact public health or the environment. The additional monitoring will be part of the environmental compliance requirements detailed in EFSEC Resolution 260.

Department staff will continue to follow Energy Northwest's activities relating to dry cask storage. 10 CFR 72, Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste, requires the plant to evaluate environmental factors and the potential for radiological and other environmental impacts on the region. The Department will follow Energy Northwest's activities, as these evaluations are done.

The Council also examined the construction activities planned for the infrastructure to support the dry cask facility and the siting considerations applied by Energy Northwest and concluded that the public health and safety will be fully protected at all times during the construction and operation of the facility.

#### **D. Conclusion**

The Council concludes that the proposed amendment to the Columbia Generating Station SCA to construct and operate a spent fuel Dry Cask Storage Facility is consistent with the intent of the original SCA; applicable law; and the public health, safety, and welfare.

**RESOLUTION:** Having considered Energy Northwest's request to amend the Columbia Generating Station SCA to allow for the construction and operation of a Dry Cask Storage Facility at the project site, the Council approves the storage facility as described in the attached amendment request. The Council authorizes Energy Northwest to proceed with construction activities, subject to taking steps to implement the following two conditions proposed as mitigation in the SEPA determination prior to initial fuel loading:

1. The Columbia Emergency Plan will be amended to recognize accidental releases from the proposed facility; and
2. The Columbia Radiological Environmental Monitoring Program (REMP) will be amended to add radiological monitoring of the Dry Cask Storage Facility. The results of monitoring will be reported in the annual REMP report to the Council. (The state will add the storage facility to its Columbia radiological monitoring program and its audits of the Energy Northwest REMP program).

The Columbia Generating Station Site Certification Agreement is amended as follows to recognize the addition of the Dry Cask Storage Facility.

SCA Condition I.B.1

B. Site Certification

1. The nuclear electric generating facility authorized to be sited by the Certification Agreement as presently defined is to include the following elements, hereinafter called the "Project": a boiling water reactor with a rated output of 3,486 megawatts (thermal), a turbine-generator, a mechanical draft evaporative cooling tower system, a control and re-cycle facility, pumphouses, **spent fuel storage facility**, transmission lines, associated service lines and other associated facilities required for the generation and transmission of electric power which are reasonably necessary and economically practicable for achieving electric generation capacity of approximately 1236 megawatts.

Dated this 11<sup>th</sup> day of September 2000.

Washington State Energy Facility Site Evaluation Council

By:

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Deborah J. Ross, EFSEC Chair

Attest:

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Allen J. Fiksdal, EFSEC Manager

Attachment

Energy Northwest Dry Cask Storage Facility Amendment Request (May 4, 2000)