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## POLICY ISSUE

November 28, 1990

(NEGATIVE CONSENT)

SECY-90-391

For:

The Commissioners

From:

James M. Taylor  
Executive Director for Operations

Subject:

FORT ST. VRAIN NUCLEAR GENERATING STATION - STATUS  
AND DEVELOPMENTS

Purpose:

To inform the Commission of recent activities related to the Fort St. Vrain Nuclear Generating Station and of related NRC staff actions.

Background:

This Commission Paper updates SECY-90-131 dated April 6, 1990, on developments at Fort St. Vrain (FSV). This paper is the second in a series of three status papers being prepared to keep the Commission informed of the staff's actions regarding decommissioning of the Rancho Seco, Fort St. Vrain, and Shoreham facilities. The Shoreham status paper will follow shortly. Commission approval of the proposed staff actions described in this paper will allow the Fort St. Vrain licensee to be relieved of certain requirements that the staff finds acceptable pending the issuance of the possession-only license (POL). In addition, the staff is preparing a response to COMKC-90-19 in a separate paper which will also transmit the Fort St. Vrain possession-only license amendment for the Commission's approval. The staff proposal dealing with the funding for decommissioning of prematurely shutdown plants is also being addressed in a separate paper.

The licensee has requested a POL and other amendments, exemptions, and reliefs as shown in Enclosure 1. Actions that are complete are listed in Enclosure 2. Relief has been granted on fire protection requirements and the removal of certain components. By letter dated October 5, 1990, to Chairman Carr, PSC requested special attention from NRC on its November 21, 1989, application for a POL.

Discussion:

The following provides the status of recent PSC activities related to FSV and NRC staff actions.

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### Plant Status

FSV was permanently shut down on August 18, 1989, because of failure of the control rod drives and degradation of the steam generator ring headers.

On June 30, 1990, the licensee submitted a comprehensive preliminary decommissioning plan. The licensee began defueling on November 27, 1989, and completed the removal of one third of the core (the maximum capacity of the fuel storage wells) on February 7, 1990.

The licensee plans to remove and ship all the spent fuel to the U.S. Department of Energy (DOE) facility in Idaho for reprocessing under an existing contract.

DOE has informed PSC that shipment of fuel could start in February 1991 if environmental issues are resolved with the State of Idaho. On June 22, 1990, PSC applied for a materials license (pursuant to 10 CFR Part 72) for an independent spent fuel storage installation (ISFSI) to store all the spent fuel in the event that shipment to DOE is not allowed. A request for hearing in connection with the ISFSI was filed by the State of Colorado but was withdrawn based on a settlement agreement between the State, PSC and NRC staff.

On November 5, 1990, PSC submitted the FSV Decommissioning Plan. The plan proposes immediate dismantling of FSV following the removal of spent fuel to DOE or the above-mentioned ISFSI.

### Plant Staffing

During the past year, the staff at FSV has been reduced from 500 to about 300 staff members. In addition, 141 contractor employees, including 100 security guards, remain on site.

### Management

No significant changes in the management team have occurred. The present team is capable of handling the completion of defueling, caretaking, and pre-decommissioning activities.

Communications between NRC staff and site management are satisfactory. An NRC inspector is now assigned to the site on a periodic basis. Starting on January 1, 1991 a full-time resident inspector will be assigned to the site. The NRC project manager and the FSV licensing representatives maintain frequent contact.

### Operations

Although the number of operations staff members has decreased slightly, the current number is adequate to support final defueling, caretaking, and pre-decommissioning activities. Staffing requirements for the shutdown, fueled status in the Technical Specifications (TS) are being maintained. Seventeen Senior Reactor Operators, 6 Reactor Operators, and 11 Special Senior Licensed Operators (licensed for fuel handling only) are on site.

### Maintenance and Surveillance

As required by the TS, normal maintenance activities continued for those systems needed during reactor shutdown while fuel remained in the core and defueling activities were being conducted.

### Engineering

Modification activities such as TMI upgrade changes have been discontinued. Major engineering effort continues on the proposed ISFSI for the FSV spent fuel.

### Emergency Preparedness

The licensee's current program meets NRC requirements. The licensee has requested an exemption from 10 CFR 50.54(q) requirements with respect to offsite emergency response. The exemption would delete requirements for offsite emergency response as the potential offsite exposures are less than those specified in the protective action guides.

### Security

One hundred security guards remain on site. PSC has proposed an amendment to the FSV security plan to reduce the scope of security requirements to cover only the storage of spent fuel in the reactor vessel and fuel storage wells. The proposed changes eliminate certain "Vital Areas" and "Vital Equipment" and procedures that are not needed because of the permanent shutdown status of FSV. When approved, the amendment will allow some reduction in the number of security guards.

### Status of the Application for a POL

By letter dated November 21, 1989, as supplemented April 25, 1990, PSC proposed to amend License No. DPR-34 to delete authority to operate FSV at any power level. This amendment constitutes an application for possession-only status. A confirmatory order was issued on May 7, 1990, to prohibit

operation of the reactor. A notice with respect to the application for possession-only status was published in the Federal Register on May 16, 1990. No public comments or requests for hearing have been received. A separate Commission Paper has been prepared for the possession-only amendment.

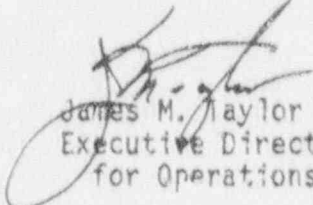
#### Potential for Further Operations at Fort St. Vrain

The licensee initially planned to terminate FSV operations by June 30, 1990, for economic reasons. However, FSV was permanently shut down on August 18, 1989, because of failures of the control rods and steam generators. FSV could not be restarted until the control rod drives and the steam generator ring headers were repaired. The licensee estimates that the repair of the control rod drives and the redesign and installation of new steam generator ring headers would take up to 5 years. The licensee also estimates that if FSV were then restarted, it could be operated for a maximum of 230 effective full-power days with one current core. Furthermore, since there are no longer any fuel fabrication facilities for FSV fuel in the United States or other countries, no additional fuel could be easily obtained for further operations. One new fuel segment that remains has been sold and shipped to a new owner. This segment, if it could be repurchased, would allow no more than 290 effective full-power days of additional operation.

The licensee is evaluating plans for converting the Fort St. Vrain facility into a conventional, gas-fueled power station. The high-pressure, superheated secondary side of the gas-cooled nuclear plant lends itself to conversion more readily than the steam systems associated with the more typical U.S. nuclear facilities.

#### Recommendation

Unless the Commission directs otherwise, the staff will complete the proposed disposition of the licensing actions listed in Enclosure 1 beginning 10 days after the date of this paper, except for those actions for which separate Commission Papers are indicated.

  
James M. Taylor  
Executive Director  
for Operations

#### Enclosures:

1. Pending Licensing Actions
2. Completed Licensing Actions

SECY NOTI: In the absence of instructions to the contrary, SECY will notify the staff on Thursday, December 13, 1990, that the Commission, by negative consent, assents to the action proposed in this paper.

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PENDING LICENSING ACTIONS

<u>Issue</u>	<u>Status</u>	<u>Proposed Disposition</u>
1. Application for possession-only license.	Notice to FR 5/16/90. Separate Commission Paper prepared.	Issue amendment
2. Proposed revision to administrative controls.	Notice to FR 4/4/90. Expect completion by 1/91.	Issue amendment
3. Proposed decommissioning fund accumulation.	Separate Commission Paper being prepared.	Issue exemption
4. Deletion of shutdown margin assessment with less than 9 fueled regions.	Notice to FR 5/30/90. Review complete.	Issue amendment
5. Proposed revision to Physical Security Plan.	Notice to FR 8/27/90. Review complete.	Issue amendment
6. Proposed exemption from offsite emergency response.	Staff action complete. Ready to issue.	Issue exemption
7. Proposed exemption from annual fees.	Commission Paper being prepared by Controller's office.	Issue exemption
8. Proposed exemption from part of property damage insurance.	Review complete. Expect completion by 12/90.	Issue exemption
9. Proposed removal of control rod drive and orifice assembly.	Notice to FR 10/17/90. Under review; expect completion by 12/90.	Issue amendment

COMPLETED LICENSING ACTIONS

<u>Issue</u>	<u>Action</u>	<u>Completion Date</u>
1. Approve use of unfueled defueling elements.	Amend license	12/1/89
2. Approve upgraded TS for fuel handling and storage.	Amend license	12/14/89
3. Approve Fire Protection Program Plan. Delete TS.	Approve plan; amend license	1/11/90
4. Approve revised TS for defueling.	Amend license	1/24/90
5. Approve Revision 3 to the Fire Protection Program Plan.	Approve plan	3/28/90
6. Confirm shutdown condition.	Issue confirmatory order	5/7/90
7. Remove and dispose of components.	Partial approval of request; balance requires POL issuance	6/21/90
8. Approve removal of "B" helium circulator.	Approve request	7/19/90