

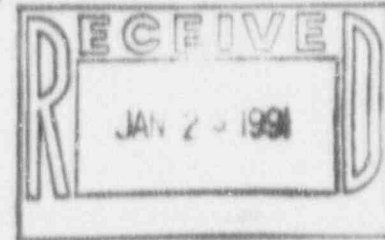


Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

January 22, 1991

Regional Administrator, Region IV
U S Nuclear Regulatory Commission
511 Ryan Plaza Drive, Suite 1000
Arlington, TX 70611



30-0500X

Pathfinder
Byproduct material License No. 22-08799-02

Submittal of Deviation Reports

In accordance with Condition 13 of our license, changes to or deviations from documentation submitted to support our current license are attached. Condition 13 requires that changes to commitments made in the application for the current license be approved by Region IV prior to implementation. These changes were approved over the telephone by Mr Fisher, of your staff, prior to implementation. Condition 13 also requires the periodic submittal of these changes to Region IV. This submittal contains the evaluation of changes made during the time period from June 28, 1990 (issuance of the current license amendment) to January 1, 1991.

Please contact us if you have any questions or comments on this matter.

Thomas M Parker
Manager
Nuclear Support Services

- c: Director NMSS, NRC
- D Martin, NMSS, NRC (2 copies)
- W Fisher, Region IV, NRC (5 copies)
- South Dakota Department of Water and Natural Resources
- Attn: Michael Pochop
- Jay Silberg

Attachment: Deviation Reports from June 28, 1990 to January 1, 1991

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ATTACHMENT

Pathfinder

Byproduct material License No. 22-08799-C2

Deviation Reports from June 28, 1990 to January 1, 1991

- EVAL-90-1 Pathfinder Decommissioning Plan - Response to NRC Comments dated September 29, 1989 (Comment 23 - Decommissioning Plan)
- EVAL-90-2 Pathfinder Decommissioning Plan - Original Submittal to NRC Dated July 18, 1989 (Section 3.2.1.6.A.1 and 3.2.1.6.B, pages 3-9 and 10)
- EVAL-90-3 Pathfinder Decommissioning Plan - Response to NRC Comments dated September 29, 1989 (Comment 16 - Decommissioning Plan)
- EVAL-90-4 Environmental Report - Decommissioning of the Pathfinder Atomic Plant (Section 1.3)

PATHFINDER DECOMMISSIONING PROJECT
PROJECT DOCUMENT DEVIATION EVALUATION FORM

Control Doc. No. EVAL-90-1

Date July 24, 1990

Document Title: Pathfinder Decommissioning Plan - Response to NRC Comments dated September 29, 1989.

Affected Section/Paragraph Comment 23 - Decommissioning Plan.

1. Description of Deviation:

This deviation will allow NSP to mechanically cut rather than drill holes in pipes, tanks or containers in areas that have a potential for water. The cuts would be made using either a Porta-band or Sawsall which essentially are manually controlled, motor operated hacksaw blades.

2. Reason for Deviation:

This deviation was necessary because of the difficulty in effectively penetrating systems with a drill due to the sma' outside diameter of some piping and the plant conditions/piping configurations that do not allow easy access for drilling.

3. Evaluation Process (Answer the following questions with a Yes or No and Provide a basis for your decision)

Does the deviation create a potential implication for public health and safety by:

- a.) Reducing prior commitments made to the NRC necessary to assure adherence to established radiological limits and requirements of 10CFR20 or 10CFR71 as referenced in PDP-EVNT.

Yes _____ No X

Basis for Decision

Mechanically cutting rather than drilling a hole into a pipe, tank or container will not increase potential radiological hazards. This initial cut into a closed system will be performed in a glove bag.

Once the isotopic distribution and contamination levels of a system are known, contamination control techniques will be employed on a case by case basis as is warranted by contamination /activation levels, whether the process be mechanically cutting or drilling.

- b.) Increasing the probability of occurrence or the consequences of an accident previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

The mechanical process of cutting will not increase the probability of occurrence or the consequences of an accident. This deviation will not increase the probability of a fire or result in the loss of A.C. power.

- c.) Creating a greater airborne concentration of radioactive materials than are present during normal decommissioning operations.

Yes _____ No X

Basis for Decision

The mechanical process of cutting is similar to drilling and hence does not create an increase in airborne concentrations of radioactive materials.

- d.) Creating the possibility of an accident of a different type than previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

This deviation is of such small magnitude and so similar to the drilling process that it will not create the possibility of a new accident.

- e.) Creating a greater release of radioactive material to the environment than those associated with normal decommissioning operations.

Yes _____ No X

Basis for Decision

The mechanical process of cutting a pipe is similar to drilling and hence will not produce more airborne contamination which could potentially be released to the environment.

- f.) Reducing prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

Yes _____ No X

Basis for Decision

This deviation is of such small magnitude and so similar to the drilling process that it will not reduce prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

- g.) Reducing prior commitments accepted by the NRC as necessary for the protection of health or to minimize danger to life or property.

Yes: _____ No X

Basis for Decision

This deviation will not increase the potential for airborne contamination and hence will not reduce prior commitments accepted by the NRC as necessary for the protection of health or to minimize danger to life or property.

4. NRC Approval/Confirmation of Deviation

(Approval) Required _____ (Confirmation) Required X

Provide the basis for not requiring NRC approval of the deviation prior to implementation

This is a minor deviation and will not have an effect on public/personnel health and safety.

Prepared By Michael R. Vaughn Date 7/25/90

Technical Review By Gary W. Henderson Date 7/26/90

Quality Review By Jerome L. Dunlop Date 7/26/90
Site QA Representative

Licensing Review By Ronald J. May Date 8/1/90
for Manager, NSS

Approved By in. Kuroyama Date 8/10/90
Project Manager

Additional Reviews By NA Date _____
(As Necessary) Sr. VP, Power Supply all

NA Date _____
Dir., Power Supply QA all

PATHFINDER DECOMMISSIONING PROJECT
PROJECT DOCUMENT DEVIATION EVALUATION FORM

Control Doc. No. EVAL-90-2

Date Aug 24, 1990

Document Title: Pathfinder Decommissioning Plan - Original Submittal to NRC Dated July 18, 1989

Affected Section/Paragraph 3.2.1.6.A).1 & 3.2.1.6.B)

1. Description of Deviation:

This deviation will allow NSP to calibrate radiation protection instrumentation at the Pathfinder site as well as at off-site facilities. It is not practical to calibrate non-portable instrumentation exclusively off-site. The Decommissioning Plan states that the calibration facilities for instruments used during decommissioning will be off-site. The additional quantity of sources necessary to calibrate these instruments is within the authorized maximum 17,000 curies allowed by the license.

2. Reason for Deviation:

This deviation was necessary because of the impracticality of calibrating non-portable radiation protection instrumentation and equipment exclusively off-site. Many of these instruments have significant amounts of heavy shielding to achieve the performance necessary and moving them for calibration is not practical and cost effective.

3. Evaluation Process (Answer the following questions with a Yes or No and Provide a basis for your decision)

Does the deviation create a potential implication for public health and safety by:

- a.) Reducing prior commitments made to the NRC necessary to assure adherence to established radiological limits and requirements of 10CFR20 or 10CFR71 as referenced in PDP-EVNT.

Yes _____ No X

Basis for Decision

The same commitment is being maintained. Meeting this commitment is not sensitive to where the equipment is calibrated.

- b.) Increasing the probability of occurrence or the consequences of an accident previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

The calibration of instrumentation on site will not increase the probability of occurrence or the consequences of an accident because the increase in source inventory is within the maximum allowed by the license.

- c.) Creating a greater airborne concentration of radioactive materials than are present during normal decommissioning operations.

Yes _____ No X

Basis for Decision

The calibration of instrumentation on site will not create an increase in airborne concentrations of radioactive materials because the sources are fundamentally sealed to prevent escape.

- d.) Creating the possibility of an accident of a different type than previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

The calibration of instrumentation has already been inherently considered in the evaluation of project documents and will not create the possibility of a new accident if calibration takes place on site.

- e.) Creating a greater release of radioactive material to the environment than those associated with normal decommissioning operations.

Yes _____ No X

Basis for Decision

The calibration of instrumentation with sealed sources on site will not release airborne contamination. This will not challenge the potential for increased release to the environment.

- f.) Reducing prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

Yes _____ No X

Basis for Decision

This deviation is not reducing a commitment. Only the site of instrumentation calibration is being clarified and will not reduce prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

g.) Reducing prior commitments accepted by the NRC as necessary for the protection of health or to minimize danger to life or property.

Yes _____ No X

Basis for Decision

This deviation will not increase the potential for airborne contamination and hence will not reduce prior commitments accepted by the NRC as necessary for the protection of health or to minimize danger to life or property.

4. NRC Approval/Confirmation of Deviation

(Approval) Required _____ (Confirmation) Required X

Provide the basis for not requiring NRC approval of the deviation prior to implementation

This is a minor deviation and will not have an effect on public/personnel health and safety.

Prepared By	<u>M. R. Vay</u>	Date	<u>8/29/90</u>
Technical Review By	<u>[Signature]</u>	Date	<u>8/29/90</u>
Quality Review By	<u>[Signature]</u> Site QA Representative	Date	<u>8/29/90</u>
Licensing Review By	<u>[Signature]</u> for Manager, NSS	Date	<u>8/31/90</u>
Approved By	<u>A. M. K...</u> Project Manager	Date	<u>9/5/90</u>
Additional Reviews By (As Necessary)	<u>N/A</u> <u>ccsk</u> Sr. VP, Power Supply	Date	_____
	<u>N/A</u> <u>ccsk</u> Dir., Power Supply QA	Date	_____

PATHFINDER DECOMMISSIONING PROJECT
PROJECT DOCUMENT DEVIATION EVALUATION FORM

Control Doc. No. EVAL-90-3

Date Sept. 18, 1990

Document Title: Pathfinder Decommissioning Plan - Response to NRC Comments dated September 29, 1989.

Affected Section/Paragraph Comment 16 - Decommissioning Plan.

1. Description of Deviation:

This deviation will allow NSP to replace the existing Reactor Building equipment hatch with a set of 1/4" steel plate doors. Each door will be attached to an angle iron frame with hinges. The angle iron frame, seal plate and door spacer will all have weather stripping attached to seal the closed door. A flexible rubber gasket material will be attached to the bottom of the door to prevent air leakage. The door will be locked from the inside and will be under the control of the Radiation Protection Group.

2. Reason for Deviation:

This deviation was necessary because of the difficulty and hazards involved with lifting the existing equipment hatch. The hatch weighs approximately 10,000 pounds and the lifting mechanism to open the hatch was removed and destroyed during SAFSTOR decommissioning.

3. Evaluation Process (Answer the following questions with a Yes or No and Provide a basis for your decision)

Does the deviation create a potential implication for public health and safety by:

- a.) Reducing prior commitments made to the NRC necessary to assure adherence to established radiological limits and requirements of 10CFR20 or 10CFR71 as referenced in PDP-EVNT.

Yes _____ No X

Basis for Decision

Replacing the equipment hatch will not increase potential radiological hazards. The replacement doors along with the outdoor equipment hatch airlock will prevent the release of radioactivity to the environment.

- b.) Increasing the probability of occurrence or the consequences of an accident previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

There are no accidents evaluated in the Project Documents that will be affected by replacing the equipment hatch.

- c.) Creating a greater airborne concentration of radioactive materials than are present during normal decommissioning operations.

Yes _____ No X

Basis for Decision

The work involved with replacing the equipment hatch with doors will not create an increase in airborne concentrations of radioactive materials.

- d.) Creating the possibility of an accident of a different type than previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

On the contrary, the replacement doors will be lighter and easier to open and close than the existing hatch. Operation of the replacement doors will be safer than the operation of the existing equipment hatch.

- e.) Creating a greater release of radioactive material to the environment than those associated with normal decommissioning operations.

Yes _____ No X

Basis for Decision

The replacement doors will utilize weather stripping and flexible rubber gaskets to prevent the release of radioactive material to the environment. These measures will provide a comparable if not better means of preventing air leakage.

- f.) Reducing prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

Yes _____ No X

Basis for Decision

The steel doors will be locked from the inside and will be under the control of the Radiation Protection Group. The replacement doors will not reduce prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

- g.) Reducing prior commitments accepted by the NRC as necessary for the protection of health or to minimize damage to life or property.

Yes _____ No X

Basis for Decision

The replacement doors will not increase the potential for airborne contamination and will be safer to open and close than the existing equipment hatch. Therefore, this deviation will not reduce prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

4. NRC Approval/Confirmation of Deviation

(Approval) Required _____ (Confirmation) Required X

Provide the basis for not requiring NRC approval of the deviation prior to implementation

This is a minor deviation and will not have an adverse effect on the public/personnel health and safety.

Prepared By Michael R. Vayt Date 9/18/90
Technical Review By William A. Davis Date 9/25/90
Quality Review By James L. Dunlop Date 9/26/90
Site QA Representative
Licensing Review By Thomas [Signature] Date 10/1/90
Manager, NSS
Approved By A. M. [Signature] Date 10/17/90
Project Manager
Additional Reviews By N/A MRV Date _____
(As Necessary) Sr. VP, Power Supply
N/A MR Date _____
Dir., Power Supply QA

PATHFINDER DECOMMISSIONING PROJECT
PROJECT DOCUMENT DEVIATION EVALUATION FORM

Control Doc. No. EVAL-90-4

Date November 14, 1990

Document Title: Environmental Report - Decommissioning of the Pathfinder
Atomic Plant

Affected Section/Paragraph: Section 1.3

1. Description of Deviation:

This deviation will allow NSP to send low-level radioactive waste to a recycling contractor (ATG) in Richland, Washington. The contractor will decontaminate the waste and items of intrinsic value will be free-released for scrap while those items of no value will be disposed of in a local landfill. Material that cannot be decontaminated will be buried in a low-level radioactive waste facility by the vendor.

2. Reason for Deviation:

This deviation will provide a substantial cost savings to NSP as opposed to shipping all low-level radioactive waste to a licensed burial facility. This deviation will also lessen the amount of burial space used by NSP at the burial facility.

3. Evaluation Process (Answer the following questions with a Yes or No and Provide a basis for your decision)

Does the deviation create a potential implication for public health and safety by:

- a.) Reducing prior commitments made to the NRC necessary to assure adherence to established radiological limits and requirements of 10CFR20 or 10CFR71 as referenced in PDP-EVNT.

Yes _____ No X

Basis for Decision

The contractor who will perform the decontamination and release of the Pathfinder waste is licensed by the State of Washington. Pathfinder release criteria will be imposed on the contractor and hence there is no potential for the violation of established

radiological limits. Radioactive waste will be transported via the same route and in the same packaging as that specified in the Decommissioning Plan.

- b.) Increasing the probability of occurrence or the consequences of an accident previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

This deviation will not increase the probability of occurrence or the consequences of an accident previously evaluated in Project Documents. Radioactive waste will be transported to the contractor in Richland, Wa. via truck or rail. Neither the number of shipments nor the transportation route will change.

- c.) Creating a greater airborne concentration of radioactive materials than are present during normal decommissioning operations.

Yes _____ No X

Basis for Decision

The packaging of radioactive waste on-site will not change due to this deviation and hence there will be no increase in airborne concentration of radioactive materials. The contractor will handle, package and transport radioactive material in accordance with it's Radioactive Materials License issued by the State of Washington.

- d.) Creating the possibility of an accident of a different type than previously evaluated in Project Documents.

Yes _____ No X

Basis for Decision

The only change this deviation produces is that radioactive waste will be smeared and frisked in a different location than previously submitted. This change will not create the possibility of a new accident.

- e.) Creating a greater release of radioactive material to the environment than those associated with normal decommissioning operations.

Yes _____ No X

Basis for Decision

The contractor will release material using the exact same release criteria used by the Pathfinder Decommissioning Project and previously approved by the NRC. All Pathfinder waste will be segregated from other waste at the contractor's facility to ensure that all Pathfinder waste is subject to Pathfinder release criteria.

- f.) Reducing prior commitments accepted by the NRC as necessary to provide for the safeguard of radioactive materials and security of the site.

Yes _____ No X

Basis for Decision

Upon arrival at the Richland site, the contractor will handle the radioactive material in accordance with it's Radioactive Materials License issued by the State of Washington.

- g.) Reducing prior commitments accepted by the NRC as necessary for the protection of health or to minimize danger to life or property.

Yes _____ No X

Basis for Decision

Prior commitments regarding the release of potentially radioactive materials will be imposed on the contractor and hence will ensure the protection of health and will not increase the danger to life or property.

4. NRC Approval/Confirmation of Deviation

(Approval) Required _____ (Confirmation) Required X

Provide the basis for not requiring NRC approval of the deviation prior to implementation

This deviation will not have an adverse effect on the public/personnel health and safety due to the fact that Pathfinder release criteria have been imposed on the contractor. The NRC was contacted on 11/14/90 and NSP was given authorization via telephone to proceed with this deviation.

Prepared By M. R. Vaughn Date 11/26/90

Technical Review By [Signature] Date 11-26-90

Quality Review By J. L. [Signature] Date 11-26-90
Site QA Representative

Licensing Review By [Signature] Date 12/10/90
Manager, NSS

Approved By A. M. [Signature] Date 12/13/90
Project Manager

Additional Reviews By Not Required ^{new} 11/26/90 Date _____
(As Necessary) Sr. VP, Power Supply

Not Required ^{new} 11/26/90 Date _____
Dir., Power Supply QA