

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 185 TO FACILITY OPERATING LICENSE NO. NPF-3

TOLEDO EDISON COMPANY

CENTERIOR SERVICE COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

# 1.0 INTRODUCTION

By application for amendment dated November 13, 1992, as supplemented on July 15 and November 10, 1993, along with a safety evaluation, Centerior Energy, the licensee for Davis-Besse Nuclear Power Station (DBNPS), Unit 1, requested NRC's approval to implement proposed modifications to operating license NPF-3, incorporating changes to technical specifications (TS) allowing longer surveillance test intervals (STIs) and allowable out-of-service times (AOTs) for the reactor protection system (RPS) and anticipatory reactor trip system (ARTS) instrumentation. The supplemental letter dated November 10, 1993, responded to the NRC staff's request for additional information relative to the TS changes and did not alter the proposed action or affect the determination published in the Federal Register. Most of the proposed changes would implement the NRC-approved Babcock and Wilcox (B&W) Topical Report, BAW-10167, "Justification for Increasing the Reactor Trip System On-Line Test Intervals," and supplements, for DBNPS TS, and remaining changes are in accordance with the Restructured B&W TS. The proposed changes would revise TS 3/4.3.1, "Reactor Protection System Instrumentation," and 3/4.3.2.3, "Anticipatory Reactor Trip System Instrumentation," to:

- Increase the channel functional test surveillance test interval for most RPS and ARTS instrument channels.
- Allow plant operation to continue indefinitely with one RPS instrument channel placed in bypass.
- Add an action statement to permit continued operation for 48 hours with two RPS channels inoperable.

- Remove channel functional test surveillance requirements for source and intermediate range neutron flux instrumentation.
- 5. Decrease the channel calibration surveillance test interval for the "High Flux/Number of Reactor Coolant Tumps On" trip from once every eighteen months to quarterly.
- Correct a typographical error in the numbering of page 3/4 3-30c.

The first five above proposed TS modifications would minimize the potential number of spurious channel trips (except for Number 2) causing reactor trips during surveillance testing, increase operational effectiveness of plant personnel, and allow resources to be used for other tasks such as preventive maintenance. In addition, the increased AOTs should result in fewer human errors since more time would be allowed to perform test, maintenance and repair actions. However, the modification to include an indefinite bypass for the RPS instrument channel will decrease the availability and as a result, the reliability of the trip system.

The July 15 and November 10, 1993, letters provided supplemental information that did not change the initial proposed no significant hazards consideration determination.

#### 2.0 EVALUATION

The B&W Owner's Group (BWOG) as part of their response to the TS improvement program (TSIP) submitted Topical Report BAW-10167, "Justification for Increasing the Reactor Trip System On-line Test Intervals" to justify increasing the Surveillance Testing Intervals (STI) from the current one month interval to a six month (with a staggered test schedule) interval. In addition, the current allowable out-of-service time (AOT) limits for each instrument channel would be modified as discussed in the evaluation and conclusion of this report. These modifications apply only to the RPS and ARTS instrument strings which are defined as including all components downstream of the process sensors to and including the bistable. The BWOG analyses did not include manual reactor trip actions nor did they include the diverse trip system installed in response to 10 CFR 50.62 (ATWS Rule). The staff reviewed BAW-10167 and supplements including the BWOG's responses to the staff's questions on these submittals. After the staff completed its review, the NRC issued two safety evaluation reports (SERs): STI-SER dated December 5, 1988, for justification for increasing on-line test intervals for the reactor trip system (RTS) instrumentation channels, and an AOT-SER dated July 8, 1992, for justification for indefinite AOT for RTS instrumentation channels.

# 2.1 Pre-Approved TS Revisions and Associated Conditions

The above SERs approved TS changes relating to extending STIs, test/maintenance AOTs, and bypass time for RTS instrument channels. In the

SERs, the NRC staff approved extensions to STIs/AOTs as well as to the time during which the instrument channels could be bypassed. However, the staff stipulated certain conditions that licensees must meet to include these preapproved changes in the plant-specific TS. The pre-approved changes and associated conditions are addressed below.

# 2.1.1 Pre-Approved TS Revisions

- 2.1.1.1 SER issued on December 5, 1988 (STI-SER). In this SER, the staff approved the following TS changes relating to STI for RTS instruments.
  - (1) Extending the STI for RPS instrument strings from 1 month to 6 months on a staggered test schedule is acceptable because it conforms to the BWOG TS improvement proposal accepted by the staff.
  - (2) The current STIs for the reactor trip modules (RTM) and for reactor trip breakers (RTB) at monthly intervals on a staggered test schedule are acceptable because they conform to the BWOG TS improvement proposal accepted by the staff.
  - (3) The current 1 hour AOT could be extended up to 48 hours because the staff agreed with BWOG's statement that a 1 hour AOT is too short a time interval to perform repairs. Accordingly, removing the current 1 hour AOT for an inoperable channel from the current TS is acceptable to the staff because it conforms to the BWOG TS improvement proposal accepted by the staff.

NOTE: BAW-10167 requested that the staff grant an indefinite AOT for one inoperable channel for Functional Units with a total of four channels. In this condition, a 2 out of 4 trip-logic configuration would be altered to a 2 out of 3. The 2 out of 3 configuration was not the original design basis and was not analyzed during the licensing process for the plant. The staff concluded that 48 hours was sufficient to make repairs. Therefore, based on the B&W risk analysis, IEEE 279 considerations and on previous staff analyses for B&W plants, the staff approved 48 hours AOT for an inoperable channel.

2.1.1.2 SER issued on July 8, 1992 (AOT-SER). In this SER, the staff approved placing one RTS channel in bypassed state for an indefinite period for repairs.

# 2.1.2 Associated Conditions for Approval

- (1) Since effects of drift in both sensors and the instrument strings were not considered sufficiently in the BAW-10167 analysis and its supplements, the licensee is required to confirm that they have reviewed drift information including as-found and as-left values for each instrument channel involved, and have determined that drift occurring in that channel over the period of the extended STI will not cause the setpoint to exceed the allowable value as calculated for that channel by the plant's setpoint methodology, and would not allow the process value to exceed the safety limit used in the safety analysis and specified in the Technical Specifications.
- (2) The licensee shall maintain on site records of the as-found and as-left values showing actual calculations and supporting data that are available for planned future staff audits. The on site records shall consist of monthly information taken over an extended period of time (approximately 2-3 years) and the plant specific setpoint methodology used to derive the safety margins.
- (3) The licensee must confirm that the B&W RTS instrumentation was originally reviewed and accepted as a four channel system with the capability of an indefinite bypass of one channel.

# 2.2 Proposed Changes and Evaluation

AOT becomes an issue when the inoperable channel cannot be repaired while at power. When an RPS channel is bypassed, all functions in the channel are prevented from providing a trip signal. However, the monitoring functions of the channel are not removed from service, but the trip logic is altered from a 2 out of 4 to a 2 out of 3. If the inoperable channel was placed in the tripped mode, the trip logic would be altered to a 1 out of 3 logic. The BWOG evaluation indicated that the 2 out of 3 configuration provides acceptable reliability to trip on demand as well as protection against spurious trips. The 1 out of 3 configuration is intolerant of a single spurious trip. In addition, testing the 1 out of 3 configuration in the tripped mode requires more human actions to switch the channel from tripped to bypassed mode and back again and, therefore, increases the susceptibility of the RTS trip logic to human error and thus may contribute to a higher RTS spurious trip rate. The BWOG evaluation concluded that extended operation with an inoperable channel in bypassed was safer than the channel in the tripped mode. However, no details were provided regarding the reduced reliability of a 2 out of 3 trip system when compared to 2 out of 4 trip system.

Because the 2 out of 4 trip configuration is more reliable when compared to the 2 out of 3 configuration, the staff expects that the licensee will continue to give high priority to the expeditious repair or replacement of a bypass channel instead of routinely placing a channel in the bypass mode for an indefinite time.

As designed, the RTS instrumentation logic has a two-out-of-four general coincidence configuration whereas the reactor trip breakers perate in a one-out-of-two twice scheme. Each of the four instrument channe, logics include instrument strings consisting of dedicated sensors through bistables, and a reactor trip module (RTM) which processes the binary signals received from all four instrument strings. The RTM produces a two-out-of-four coincident logic which initiates opening of its assigned reactor trip circuit breakers.

An inoperable instrument string is normally placed in bypass until the AOT expires. Until the proposed indefinite bypass, the current TS allowed AOT is 1 hour. A bypassed instrument string causes its output relays in each of 4 RTMs to remain in an untrippable mode, and therefore, until the AOT expires, the RTS trip initiation logic is reduced from a two-out-of-four configuration to a two-out-of-three configuration, resulting in a reduced redundancy. If the bypassed-inoperable channel is not restored within the AOT, the current TS requires that the inoperable channel be placed in a tripped mode with the remaining RTS channels in a one-out-of-three configuration. The above logic configuration changes do not affect the one-out-of-two twice logic of the reactor trip breakers needed for reactor trip.

The staff evaluated the licensee's proposed plant specific TS changes. If any of the proposed changes were consistent with the pre-approved change(s) they were accepted based on the pre-approved changes as described above. The staff verified that the licensee has met the applicable condition(s) which were stipulated by the NRC for the pre-approved changes.

#### 2.2.1 Proposed Revisions

- 2.2.1.1 Table 4.3-1, "Reactor Protection System Instrumentation Surveillance Requirements."
  - (1) Proposed changes: For Functional Units 3 (RC High temperature), 5 (RC Low Pressure), 6 (RC High pressure), 7 (RC Pressure-Temperature), 9 (Containment High Pressure), and 14 (Shutdown Bypass High Pressure) change CHANNEL FUNCTIONAL TEST frequencies from "M" monthly to "SA(9)" semi-annually with Note 9 applying. Add Note (9) to column "CHANNEL FUNCTIONAL TEST" for Functional Units 12 (Control Rod Drive Trip Breakers) and 13 (Reactor Trip Module Logic). Add a statement for note 9 to the Table 4.3-1 to read, "Performed on a staggered test basis."

Evaluation: The above described changes are acceptable because they conform to the BWOG TS improvement proposal accepted by the staff as described in Sections 2.1.1.1(1) and 2.1.1.1(2) of this report.

(2) <u>Proposed changes</u>: For Functional Units 2 (High Flux), 4 (Flux-Delta Flux-Flow) change CHANNEL FUNCTIONAL TEST frequency from "M" monthly to "N.A." (not applicable), and add Note (9) to quarterly CHANNEL CALIBRATION.

Evaluation: The channel functional test is no longer applicable because these functional units are calibrated quarterly, and by the TS definition 1.9, the channel calibration includes the channel functional test. In accordance with Note (9), these tests would be performed on a staggered test basis. The STI-SER allows the STI for RTS channels to be a maximum of up to 6 months. Quarterly calibration of these channels on a staggered basis is acceptable to the staff because it conforms to the BWOG TS improvement proposal accepted by the staff as described in Section 2.1 of this report.

2.2.1.2 able 4.3-17, "Anticipatory Reactor Trip System Instrumentation Surveillance Requirements"

Proposed changes: For Functional Units 1 (Turbine Trip) and 2 (Main Feed Pump Turbine Trip) change CHANNEL FUNCTIONAL TEST frequency from "M" monthly to "SA(c)" semi-annually with Note (c) applying. Add a statement for Note (c) to the Table 4.3-17 to read, "Perform on a staggered test basis."

<u>Evaluation</u>: The above described changes are acceptable because they conform to the BWOG TS improvement proposal accepted by the staff as described in Section 2.1.1.1(1) of this report.

2.2.1.3 Table 3.3-1, "Reactor Protection System Instrumentation," ACTION 2, ACTION 3.

<u>Proposed changes</u>: ACTION 2.a is revised to require an inoperable channel to be placed in either the bypassed or tripped condition within 1 hour. ACTION 2.b would be deleted.

<u>Evaluation</u>: In case the number of OPERABLE channels are one less than the Total Number of Channels, the existing ACTION 2 allows STARTUP and/or POWER OPERATION to proceed provided all of the following conditions are satisfied:

2.a The inoperable channel is placed in the tripped condition within 1 hour. 2.b If minimum channels OPERABLE requirement is met, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.1.

The revised action statement for 2.a allows the inoperable channel to be placed either in a bypassed or tripped condition within 1 hour, removes 2.b completely, and action 2.c becomes 2.b. Therefore, with the proposed TS revision, operators have a choice to place the inoperable channel either in a "tripped" condition or in a "bypassed" state within 1 hour. Removal of the requirement to place an inoperable channel only in a tripped condition within I hour, and allowing it to be placed in a bypassed state for an indefinite period conforms to the BWOG TS improvement proposal accepted by the staff as described in Section 2.1.1.2 of this report. The staff notes that placing an RTS channel in indefinite bypass reduces the reliability of the system but does not prevent the system from performing its safety function as discussed in the staff's safety evaluation dated July 8, 1992. Further, in most cases an AOT of 48 hours would be adequate to perform repairs. Since the bypass feature is used primarily during testing and maintenance and since the two-out-of-four configuration is the best state, the staff expects that the licensee will continue to give high priority to the repair of a bypassed channel.

Removal of 2.b is acceptable to the staff because it conforms to the BWOG TS improvement proposal accepted by the staff as described in Section 2.1 of this report. Changing the serial number of action 2.c to 2.b is an editorial change, and is acceptable to the staff.

<u>Proposed changes</u>: ACTION 3.a is revised to require an inoperable channel to be placed in either the bypassed or tripped condition within 1 hour. ACTION 3.b would be deleted and 3.a becomes 3.

<u>Evaluation</u>: In case the number of OPERABLE channels are one less than the Total Number of Channels, the existing ACTION 3 allows STARTUP and POWER OPERATION to proceed provided all of the following conditions are satisfied:

- 3.a The inoperable channel is placed in the tripped condition within 1 hour.
- 3.b If Minimum Channels OPERABLE requirement is met, one auditional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.1

The revised action statement 3.a allows the inoperable channel to be placed either in a bypassed or in a tripped condition within 1 hour, removes 3.b completely, and combines action statements of

3.a to 3. Therefore, with the proposed TS revision, operators have a choice to place the inoperable channel either in a "tripped" condition or in a "bypassed" state within 1 hour. As stated previously, removal of a requirement to place an inoperable channel only in a tripped condition within 1 hour, and allowing it to be placed in a bypassed state for an indefinite period conforms to the BWOG TS improvement proposal as described in Section 2.1 of this report. The staff again notes that placing an RTS channel in indefinite bypass reduces the reliability of the system but does not prevent the system from performing its safety function as discussed in the staff's safety evaluation dated July 8, 1992. Further, in most cases an AOT of 48 hours would be adequate to perform repairs. Since the bypass feature is used primarily during testing and maintenance and since the two-out-of-four configuration is the best state, the staff expects that the licensee will continue to give high priority to the repair of a bypassed channel.

Removal of 3.b is acceptable to the staff because, if per 3.a the inoperable channel is bypassed, surveillance tests on an additional channel could be performed without a resulting reactor trip while in this condition. Combining action statement 3.a in 3 is an editorial change, and is acceptable to the staff.

Note: The proposed revision does not clearly specify in what conditions the inoperable channel would be placed in a "tripped" condition, or in what conditions it would be placed in the "bypassed" state. The staff notes that as long as no additional channel is being assigned for surveillance testing, the inoperable channel should be placed in a bypassed condition, so that the 2 out-of 3 trip logic configuration is maintained. This approach is consistent with that which was evaluated and approved by the staff in the STI-SER and AOT-SER as discussed below. If an additional channel is being assigned for the surveillance testing, and if this test would be performed by placing the channel being tested in a "tripped" state, the 2 out of 3 configuration would still be maintained (with a 1 out of 2 configuration for channels which are still in operation) while the inoperable channel is in a "bypassed" state. If the channel being tested is placed in a "bypassed" state during the test, then there would be concurrently 2 channels in the "bypassed" state, thereby reducing the trip logic configuration to 2 out-of 2, which was not evaluated and approved by the staff in the STI-SER and AOT-SER. Therefore, to maintain a 2 out-of 3 trip configuration, in this situation, the inoperable channel should be placed in the tripped state, if the additional channel is being tested in the bypassed state. This

will reduce the trip logic to a 1 out of 2. The original design of the RTS was configured using four monitoring channels and trip logic channels which initiate a reactor trip when any two of the four operable channels sense that the monitored process variable(s) has reached the trip setting.

The staff notes that placing an RTS channel in indefinite bypass reduces the reliability of the system but does not prevent the system from performing its safety function as discussed in the staff's safety evaluation dated July 8, 1992. Further, in most cases an AOT of 48 hours would be adequate to perform repairs. Since the bypass feature is used primarily during testing and maintenance and since the two-out-of-four configuration is the best state, the staff expects that the licensee will continue to give high priority to the repair of a bypassed channel.

2.2.1.4 Table 3.3-1, "Reactor Protection System Instrumentation," Functional Units 2 through 9

Proposed changes: Add 10 to ACTION column for Functional Units 2 (High Flux), 3 (RC High temperature), 4 (Flux-Delta Flux-Flow), 5 (RC Low Pressure), 6 (RC High pressure), 7 (RC Pressure-Temperature), 8 (High Flux/Number of Reactor Coolant Pumps On), and 9 (Containment high Pressure). Add ACTION 10 statement to Table 3.3-1 to read, "With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement, within one hour, place one inoperable channel in trip and the second inoperable channel in bypass, and restore one of the inoperable channels to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours and open the reactor trip breakers."

<u>Evaluation</u>: With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement, the existing TS 3.0.3 requires action be initiated within 1 hour to place the unit in a mode in which the technical specification does not apply by placing the unit as applicable in:

1. At least HOT STANDBY within 6 hours,

2. At least HOT SHUTDOWN within the following 6 hours, and

3. At least COLD SHUTDOWN within the subsequent 24 hours.

The new ACTION 10 would require that 1) within 1 hour, one inoperable channel be placed in trip, and the second inoperable channel be placed in bypass, 2) 48 hours be allowed to restore one of the inoperable channels to OPERABLE status, or be in HOT STANDBY within the next 6 hours, and 3) reactor trip breakers be opened. The proposed new ACTION is adopted from the Restructured

Standard Technical Specifications (RSTS) for B&W Plants (NUREG-1430, Section 3.3.1). The AOT is acceptable to staff because it conforms to the proposal accepted by the staff as described in Section 2.1.1.1(3) of this report and is more conservative than the BWOG TS, NUREG-1430.

2.2.1.5 Table 4.3-1, "Reactor Protection System Instrumentation Surveillance Requirements." Functional Units 10 and 11

Proposed changes: Change CHANNEL FUNCTIONAL TEST interval for Functional Unit 10 (Intermediate Range, Neutron flux and rate) from "S/U(5)(1)" (which means prior to reactor startup with Notes (5) and (1) applying) to "N.A.(5)" (which means not applicable with Note 5 applying), and for Functional Unit 11 (Source Range, Neutron Flux and Rate) from "M and S/U(1)(5)" (which means monthly while in Modes 2 through 5 and prior to reactor startup with Notes (1) and (5) applying) to "N.A.(5)" (which means not applicable with Note 5 applying). Note 5 reads as follows:

"Verify at least one decade overlap if not verified in previous 7 days." To provide an editorial clarification to Note 5, change to: "CHANNEL FUNCTIONAL TEST is not applicable. Verify at least one decade overlap prior to each reactor startup if not verified in previous 7 days."

<u>Evaluation</u>: The licensee stated that although the current surveillance requirements for these Functional Units are prior to startup for both 10 and 11, and on a monthly basis during shutdown only for 11 (Source Range, Neutron Flux and Rate), the licensee also performs a CHANNEL FUNCTIONAL TEST on these Functional Units on a monthly basis while the plant is in mode 1. Monthly testing is done to assure that the surveillance requirements are always current in the event the plant experiences a reactor trip or an unplanned shutdown. To alleviate this burden, the licensee considered increasing the monthly surveillance interval for source range instrumentation to semi-annually in accordance with the staff's approval of BAW-10167 changes. However, it was noted that the B&W RSTS eliminated the CHANNEL FUNCTIONAL TESTS for source range (RSTS 3.3.9) and intermediate range (RSTS 3.3.10) instrumentation on the basis that they perform only a monitoring function except for the control rod withdrawal inhibit, which is only required during low power physics testing. For instrumentation that performs a monitoring function, the RSTS considers an 18 month interval for channel calibrations and channel checks each shift to be the appropriate surveillance requirements. As in the RSTS, the control rod withdrawal inhibit function is verified under the existing DBNPS Special Test

Exception 3.10.2, Physics Tests, by Surveillance Requirement 4.10.2.2. This is acceptable to the staff, including the editorial clarification to Note 5, because it conforms to the BWOG TS improvement proposal accepted by the staff as described in Section 2.1 of this report.

2.2.1.6 Table 4.3-1, "Reactor Protection System Instrumentation Surveillance Requirements." Functional Unit 8

Proposed change: Change CHANNEL CALIBRATION interval for Functional Unit 8 (High Flux/Number of Reactor Coolant Pumps On) from "R" (Refueling outage-18 months) to "Q(6,9)" (quarterly with Notes 6 and 9 applying). Change CHANNEL FUNCTIONAL TEST interval from "M" (Monthly) to "N.A." (not applicable).

Evaluation: The Functional Unit 8 "High Flux/Number of Reactor Coolant Pumps On" trip uses inputs from Functional Units 2 (High Flux) and 4 (Flux- Delta Flux- Flow), respectively which are calibrated quarterly. Because Functional Units 2 and 4 are required to be calibrated more frequently than Functional Unit 8, the potential exists for adjustments made during calibration of Functional Units 2 and 4 to adversely affect the calibration of Functional Unit 8. To avoid such a situation, it is therefore appropriate for Functional Unit 8 to have the same CHANNEL CALIBRATION interval as Functional Units 2 and 4. This is acceptable to the staff because it conforms to the BWOG TS improvement proposal accepted by the staff as described in Section 2.1 of this report.

As a part of implementing BAW-10167 requirements, CHANNEL FUNCTIONAL TEST interval for Functional Unit 8 should have been revised from the current "M" (monthly) to "SA(9)" (which means semi-annually on a staggered test schedule basis), but because the quarterly CHANNEL CALIBRATION includes channel functional tests, the quarterly test interval is conservative compared to a semi-annual interval and is, therefore, acceptable. Removing the CHANNEL FUNCTIONAL TEST interval for Functional Unit 8 is acceptable to the staff because it conforms to the proposal accepted by the staff as described in Section 2.1 of this report and is more conservative than the BWOG TS, NUREG-1430.

2.2.1.7 The proposed change revises the Page Number "3/4 30 c" to "3/4 3-30c." This change is an editorial change and is acceptable to the staff.

#### 2.3 Verification of Conditions

In its November 13, 1992 submittal, the licensee confirmed that it reviewed instrument drift data for affected instrument strings for the period from January 1988 through July 31, 1992, and evaluated affects of these data on TS limits, safety limits and margins of instrument string uncertainties. The results of this review indicated that non-technical field adjustments would be required in instruments for a few functional units. The licensee will implement all required changes prior to implementation of the proposed TS revision. The licensee has maintained records of the as-found and as-left calibration data for each affected instrument string, and also the records of the evaluations to determine the effects of the "as-found" and "as-left" data on instrument setpoint and safety limits. The licensee confirmed that the Davis-Besse, Unit 1 RTS instrumentation is a four-channel system with the capability of an indefinite bypass of one channel, and the reactor protection system was originally reviewed and accepted by the staff as a four-channel system.

Based on the above evaluation, the staff concludes that the proposed revision to the TS of the Davis-Besse Nuclear Power Station, Unit 1 are acceptable because they conform to the BWOG TS improvement proposal accepted by the staff as described in Section 2.1 of this report. The staff notes that placing an RTS channel in indefinite bypass reduces the reliability of the system but does not prevent the system from performing its safety function, as discussed in the staff's safety evaluation dated July 8, 1992, and meets the relevant requirements of "Standard Review Plan" (NUREG-0800) Sections 7.1 and 7.2. Further, in most cases an AOT of 48 hours would be adequate to perform repairs. Since the bypass feature is used primarily during testing and maintenance and since the two-out-of-four configuration is the best state, the staff expects the licensee will continue to give high priority to the repair of a bypassed channel.

#### 3.0 STATE CONSULTATION

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

#### 4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released

offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (58 FR 41516). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 5.0 CONCLUSION

The staff 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: S. V. Athavale

Date: March 28, 1994