

Initiation		
Author: Walk, James W	Group: Eng P&C Fire Protection Staff	Phone: 4923
Created: 7/31/01 8:59:54AM	Supervisor: Rispoli, Ronald D	Initiated: 7/31/01 9:14:32A

Condition Description:

The raceway tracking system (i.e. PDMS) does not identify all zones in which conduit EB2034 is routed. Consequently, the Safe Shutdown Capability Assessment does not identify that EB2034 is located in the same fire zone (i.e. Zone 53-Y, Lower North Piping Room) as EB1011. These two raceways contain the power cables for CV1407 and CV1408. The location of these raceways does not meet the separation requirements of 10CFR50 Appendix R, Section III.G.

Immediate Action Description:

Post a firewatch (hourly, if detection system in Zone 53-Y is operable).

Suggested Action Description:

Identify all zones in which EB2034 is routed. Update PDMS and the SSCA accordingly.
Determine method for complying with the separation requirements associated with redundant safe shutdown equipment.

Equipment:

Tag Name	Tag Suffix Name	Component Code	Process System Code
CV1407		VALVE	DH
CV1408		VALVE	DH

Reference Items:

Type Code	Description
ZZ ASSIGNMENT	Jones, Dennie
LICENSING BASIS DOC	10CFR50 Appendix R, Section III.G

CR-ANO-1-2001-0804	Operabilities
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Operability Version: 1	Performed By: Rehm, Philip E	Date Performed: 7/31/01 5:00:15PM
Initial Reportability Code:	NOT REPORTABLE	Operability Code: EQUIPMENT OPERABLE

Operability Description:

Per the attached operability provided by Fire Protection Engineering, CV-1407, CV-1408 and associated equipment remain operable.

Operability Approved By: Clement, Joe C

Approval Description

CR-ANO-1-2001-0804	Reportabilities
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Reportability Version: 1	Performed By: Van Buskirk, Fred P	Date Performed: 8/1/01 9:25:06AM
Boilerplate Code:	NO REPORT - EQUIP	Report Number:

Report Code: NOT REPORTABLE

Reportability Description:

This condition involves equipment issues that do not cause a reportable condition. The operability evaluation provides a basis to conclude that redundant components would not be affected by a single fire as a result of this condition, and that the condition would not prevent the ability to achieve and maintain safe shutdown for any credible fire scenario. Therefore, this condition is not reportable (ref. TREDIS, SAF 1.6).

CR-ANO-1-2001-0804	Assignments
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Assignment Version 1

Owner Group:

Significance Code:

Classification Code:

Handwritten signatures and initials: XKS, kw

NO-1-2001-0806	Initiation	
Hendrix, Ronald D	Group: Eng P&C Fire Protection Staff	Phone: 5854
Discovered: 7/31/01 12:47:23PM	Supervisor: Rispoli, Ronald D	Initiated: 7/31/01 1:05:45

Condition Description:

Fire wrap found degraded on conduit EB1073 which contains cables to CV-1407 (BWST Outlet Valve). A capped T16A acid addition line passes in close proximity to the conduit (approximately 1/4") requiring that the acid line be incorporated into the wrap system to eliminate a thermal short condition. A small collar at the interface of the bottom side of the fire wrap and the acid line has slid down exposing both the acid line and conduit EB1073.

Immediate Action Description:

Establish a fire watch in accordance with 1000.152 for the degraded barrier.
MAI #50126 written to remove protective lagging, inspect for additional damage and repair as required.

Suggested Action Description:

Equipment:

Tag Name	Tag Suffix Name	Component Code	Process System Code
CV1407		VALVE	DH

Reference Items:

Type Code	Description
ZZ ASSIGNMENT	Jones, Dennie
MAI	50126
PROCEDURE	1000.152

CR-ANO-1-2001-0806	Operabilities
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Operability Version: 1	Performed By: Rehm, Philip E	Date Performed: 7/31/01 2:16:42PM
Initial Reportability Code:	NOT REPORTABLE	Operability Code: EQUIPMENT INOPERABLE

Operability Description:

The degraded fire wrap renders the fire wrap inoperable. Per the originator, the subject fire wrap meets the requirements of a one-hour fire wrap. Fire wrap specifications are addressed in section 9D.6, Fire Barriers of the Unit 1 & 2 Fire Protection System Specifications, 1000.152. Section 9D.6.3 states in part that all fire barriers separating redundant safe shutdown systems shall be operable at all times. Additionally, a fire watch shall be established within one hour of determining a fire barrier to be inoperable. Fire detection equipment with control room alarm was verified operable followed by posting of an hourly fire watch.

This condition does not affect operability of other SSCs.

MAI 50126 was initiated for repairs.

Operability Approved BY: Clement, Joe C

Approval Description

CR-ANO-1-2001-0806	Reportabilities
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Reportability Version: 1	Performed By: Van Buskirk, Fred P	Date Performed: 8/1/01 10:34:30AM
Boilerplate Code:	NO REPORT - EQUIP	Report Number:

Report Code: NOT REPORTABLE

Reportability Description:

This condition involves equipment issues that do not cause a reportable condition. Proper compensatory measures for the inoperable fire wrap have been implemented in accordance with Fire Protection System Specifications. The condition would not prevent achieving and maintaining safe shutdown in the event of an Appendix R fire.

Operability

CR-AND-1-2001-0804 Version - 001 - Operability - Operability Description

Operability for CR-1-2001-0804

The circuitry associated with the BWST outlet valves (i.e. CV1407 and CV1408) are routed through conduits located in Zone 53-Y, elevation 335'. The conduits penetrate the north wall of this zone, approximately 2 feet apart, at elevation 352' (approximate). After penetrating the wall, EB2034 runs vertically through the ceiling. EB1011 also runs vertically for approximately 10 feet before turning and running horizontally to the east (i.e. away from EB2034).

The subject conduits contain the power and position indication cables for the aforementioned valves. Fire damage to these circuits could prevent remote operation of the valves. At least one of the valves would need to be opened in order to provide a borated water supply for the Make-up pump(s). With RCS leakage within Tech Spec limits and timely isolation of Letdown, RCS inventory make-up will not be required for approximately 1 hour (reference Calculation 85-E-0072-02). Manual operation of the BWST outlet valves is specified in the Alternate Shutdown procedure, indicating that sufficient emergency lighting is available. An unrated, solid concrete wall separates Fire Zone 53-Y from Zone 20-Y (i.e. the location of the BWST outlet valves). There are no openings in the wall that would allow migration of smoke and/or heat from Zone 53-Y to Zone 20-Y. The pathway to the BWST valves is through Zone 67-U (elevation 354') and is separated from Zone 53-Y by a 3-hour rated barrier. Considering all of these factors, in the event that a fire in Zone 53-Y causes a loss of remote operation, sufficient time and adequate access are available to manually open the BWST outlet valve(s) and achieve safe shutdown.

The combustible loading for Zone 53-Y is negligible and equates to a fire with a severity of less than 1 minute. Due to the room configuration and administrative controls, the accumulation of a significant transient combustible load in the vicinity of the conduits is precluded. A smoke detection system is installed in Zone 53-Y to provide early indication of fire conditions.

The combination of low combustible loading and the room configuration/location of the conduits provide favorable conditions such that redundant components would not be affected by a single fire. Furthermore, even if a fire in Zone 53-Y affected the remote operation of both BWST outlet valves (i.e. cause them to be inoperable), the fire protection features are judged to be sufficient to confine the fire to Zone 53-Y and allow personnel access to the flow control valves in Zone 20-Y.

Therefore, while the literal separation requirements specified by Appendix R have not been met in Fire Area C, the safe shutdown function (i.e. providing a borated water source) can be achieved and the minimum amount of redundant safe shutdown components are deemed to be operable for any credible fire scenario.

Prepared by W. Walker, Fire Protection Engineering