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Indian Point 3 Nuclear Power Plant

Systems Interaction Study Report

Volume 14



**New York Power
Authority**

Indian Point 3 Nuclear Power Plant

Systems Interaction Study Report

Volume 14

COPY NUMBER 5



**New York Power
Authority**

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY

NON-CONNECTED INTERACTIONS EVALUATION

1. No Interaction - Source is Class II and is therefore supported adequately. (See response to IP-3 FSAR question 5.24).
2. Acceptable - Source pipe/conduit is equal size or smaller in diameter and/or the same thickness or thinner wall than the target pipe/conduit/tubing. Paragraph 6.2.2.1a Volume I.
3. Acceptable - Source has insufficient mass to damage the target component.
4. Acceptable - Basis is engineering judgement. Specific justification is on the evaluation form.
5. Potentially Unacceptable - Discussion of specific is on the evaluation form.
6. Potentially Unacceptable - Source pipe/conduit is large enough to damage target conduit/pipe/tubing.
7. Potentially Unacceptable - Source will fall a sufficient distance, or has adequate mass such that damage to target conduit/box/instrument/tubing/panel may be possible.
8. No Interaction - Upon further investigation of the source, this portion of its system is designated Seismic I.

R2 7/22/82
R1 6/30/82
R0 6/26/82

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-167-4

PHOTOGRAPH NO.: M-159

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-1871A

SOURCE: 2" - #725

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target.

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-168-1

PHOTOGRAPH NO.: M-158

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-736B (Bottom right)

SOURCE: Light Fixture (Top center)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY
UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-168-2

PHOTOGRAPH NO.: M-158

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-736B (Bottom right)

SOURCE: Temporary Monorail (Arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 7

Removal of temporary monorail must be verified prior to start of operation.

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-168-3

PHOTOGRAPH NO.: M-159

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-736B (Bottom)

SOURCE: 4" Floor Drain (Lower arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-168-4

PHOTOGRAPH NO.: M-159

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-736B

SOURCE: 2" - #725

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~POTENTIALLY
UNACCEPTABLE~~

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SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-169-2

PHOTOGRAPH NO.: M-158

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-737B (Not shown)

SOURCE: Temporary Monorail (Arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 7

Removal of temporary monorail must be verified prior to start of operation.

_____ ACCEPTABLE

_____ x _____ POTENTIALLY
UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-170-2

PHOTOGRAPH NO.: M-158

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-750D (Not shown)

SOURCE: Temporary Monorail (Arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 7

Removal of temporary monorail must be verified prior to start of operation.

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 4

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-171-1

PHOTOGRAPH NO.: M-158

BACKGROUND NO.: 27

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-1871B (Not shown)

SOURCE: Light Fixture (Top center)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY
UNACCEPTABLE~~

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SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 5

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-174-2

PHOTOGRAPH NO.: M-414

BACKGROUND NO.: 9 - 38

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-756B

SOURCE: 2"-PW-393

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-192-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-749B (Not shown)

SOURCE: 4" Floor Drain (3 small arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-194-1

PHOTOGRAPH NO.: M-304

BACKGROUND NO.: 9 - 28

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-570B (Not shown)

SOURCE: Light Fixtures (White arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-196-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-787 (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-198-1

PHOTOGRAPH NO.: M-303

BACKGROUND NO.: 9 - 28

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-749A (Not shown)

SOURCE: Light Fixtures (White arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION: 3

EVALUATION NOTE NO:

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-199-1

PHOTOGRAPH NO.: M-303

BACKGROUND NO.: 9 - 28

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: ST-54 (Not shown)

SOURCE: Light Fixtures (White arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-203-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-749C (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-206-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-750F (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-210-1

PHOTOGRAPH NO.: M-304

BACKGROUND NO.: 9 - 28

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Circulating Water Pump #32 (Not shown)

SOURCE: Light Fixtures (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

POTENTIALLY
~~UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-210-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Circulating Water Pump #32 (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-211-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: B. W. Cooler #32 (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-212-1

PHOTOGRAPH NO.: M-304

BACKGROUND NO.: 9 - 28

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Oil Cooler #32 (Not shown)

SOURCE: Light Fixtures (White arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-212-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: B. W. Cooler #32 (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-214-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: .B. W. Cooler #33 (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 9

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-215-2

PHOTOGRAPH NO.: M-210

BACKGROUND NO.: 9 - 29

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Oil Cooler #33 (Not shown)

SOURCE: 4" Floor Drain (3 small white arrows) \

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 19A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-230-4

PHOTOGRAPH NO.: M-312

BACKGROUND NO.: 9 - 42

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-836 (Not shown)

SOURCE: Conduit (Top arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 19A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-232-1

PHOTOGRAPH NO.: M-314

BACKGROUND NO.: 9 - 42

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-49 (3/4" D) (Not shown)

SOURCE: 2" - #730 (Top left arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY
UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 19A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-235-5

PHOTOGRAPH NO.: M-312

BACKGROUND NO.: 9 - 42

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-768B (Not shown)

SOURCE: 1" - #677 (Bottom left arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 19A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-237-2

PHOTOGRAPH NO.: M-312

BACKGROUND NO.: 9 - 42

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-768A (Not shown)

SOURCE: 2" - #392 (2nd arrow from top)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~_____~~ POTENTIALLY UNACCEPTABLE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 19A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-237-3

PHOTOGRAPH NO.: M-312

BACKGROUND NO.: 9 - 42

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-768A

SOURCE: 3/4" - #521

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INTERACTION ENGINEER/DATE

W Griswold 9/22/82
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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 19A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-237-4

PHOTOGRAPH NO.: M-312

BACKGROUND NO.: 9 - 42

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-768A (Not shown)

SOURCE: Conduit (Top arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
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W Griswold 9/22/82
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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 19A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-241-6

PHOTOGRAPH NO.: M-314

BACKGROUND NO.: 9 - 42

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Waste Evaporator Condenser #31 (At bottom)

SOURCE: 3/4" - #529 (Arrow at right side)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY
UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 20A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-242-1

PHOTOGRAPH NO.: M-307

BACKGROUND NO.: 9-36

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-799A

SOURCE: 2" - #357

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

 x ACCEPTABLE

 POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 20A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-244-1

PHOTOGRAPH NO.: M-307

BACKGROUND NO.: 9-36

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-816 (3/4"RV)

SOURCE: M-307

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 20A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-252-1

PHOTOGRAPH NO.: M-307

BACKGROUND NO.: 9-36

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Press. Steam Sample H-X #32

SOURCE: 2" - #357

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

 ^x ACCEPTABLE

 POTENTIALLY
 UNACCEPTABLE

 D Mirkovic 9/1/82
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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 22A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #32
POTENTIAL INTERACTION NO.: V9-260-3
PHOTOGRAPH NO.: M-327
BACKGROUND NO.: 9-48

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-526B

SOURCE: 2" - #592

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~POTENTIALLY
UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING:

FIRE ZONE: - INTENTIONALLY LEFT BLANK -

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.:

PHOTOGRAPH NO.:

BACKGROUND NO.:

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET:

SOURCE:

DESCRIPTION OF POSTULATED INTERACTION:

EVALUATION OF INTERACTION:

EVALUATION NOTE NO:

_____ ACCEPTABLE

_____ POTENTIALLY
UNACCEPTABLE

INTERACTION ENGINEER / DATE

VERIFIED / DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: - INTENTIONALLY LEFT BLANK -

FIRE ZONE:

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.:

PHOTOGRAPH NO.:

BACKGROUND NO.:

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET:

SOURCE:

DESCRIPTION OF POSTULATED INTERACTION:

EVALUATION OF INTERACTION:

EVALUATION NOTE NO:

_____ ACCEPTABLE

_____ POTENTIALLY
UNACCEPTABLE

INTERACTION ENGINEER/DATE

VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 22A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #32
POTENTIAL INTERACTION NO.: V9-267-3
PHOTOGRAPH NO.: M-326
BACKGROUND NO.: 9-48

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-827D (Not shown)
SOURCE: 3" - #728 (Arrow at center)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 22A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #32
POTENTIAL INTERACTION NO.: V9-267-4
PHOTOGRAPH NO.: M-326
BACKGROUND NO.: 9-48

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-827D

SOURCE: Instrument Air

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 8

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 22A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #32
POTENTIAL INTERACTION NO.: V9-267-5
PHOTOGRAPH NO.: M-326
BACKGROUND NO.: 9-48

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-827D (Not shown)
SOURCE: Light Fixture (Top right)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 22A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #32
POTENTIAL INTERACTION NO.: V9-269-5
PHOTOGRAPH NO.: M-326
BACKGROUND NO.: 9-48

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-824H (Flow element root valve, at center)
SOURCE: Light Fixture (Top right)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 24A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #31
POTENTIAL INTERACTION NO.: V9-278-3
PHOTOGRAPH NO.: M-332
BACKGROUND NO.: 9-49

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-826A (6")

SOURCE: 1-1/2" - #593

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 24A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #31
POTENTIAL INTERACTION NO.: V9-279-3
PHOTOGRAPH NO.: M-332
BACKGROUND NO.: 9-49

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-1817C (6")

SOURCE: 1-1/2" - #593

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

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VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 24A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #31
POTENTIAL INTERACTION NO.: V9-282-3
PHOTOGRAPH NO.: M-332
BACKGROUND NO.: 9-49

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-821A (Bottom left)
SOURCE: Light Fixture (Lower left)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~_____~~ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 24A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #31
POTENTIAL INTERACTION NO.: V9-286-1
PHOTOGRAPH NO.: M-330
BACKGROUND NO.: 9-49

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-824B (Center left, Flow element root valve)

SOURCE: 1-1/2" - #196 (Center white arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 24A
LOCATION WITHIN FIRE ZONE: Boric Acid Package #13
POTENTIAL INTERACTION NO.: V9-288-5
PHOTOGRAPH NO.: M-331
BACKGROUND NO.: 9-49

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Boric Acid Evap. Distillate Clr. (Bottom)
SOURCE: 2" - #727 (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 25A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-298-1

PHOTOGRAPH NO.: M-324

BACKGROUND NO.: 9-49

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Seal Water Heat Exch. (Bottom)

SOURCE: Light Fixture (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-299-2

PHOTOGRAPH NO.: M-319

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-835B (Relief valve at left)

SOURCE: 3/4" - City Water (Top arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

 ^x ACCEPTABLE

 POTENTIALLY
 UNACCEPTABLE

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-300-1

PHOTOGRAPH NO.: M-319

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: RCV-017B (2") (Valve at center right)

SOURCE: 3/4" City Water (Top arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

~~_____~~ POTENTIALLY UNACCEPTABLE

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INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-301-1

PHOTOGRAPH NO.: M-317

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-832A

SOURCE: 2" - #479

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~_____~~ POTENTIALLY UNACCEPTABLE

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INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-304-3

PHOTOGRAPH NO.: M-323

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-814 (Bottom center-left)

SOURCE: 2" City Water (Lower black arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-304-4

PHOTOGRAPH NO.: M-323

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-814

SOURCE: 3" - #393

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INTERACTION ENGINEER/DATE

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VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-305-3

PHOTOGRAPH NO.: M-323

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-41 (3/4" D) (Bottom center)

SOURCE: 2" City Water (Lower black arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 4

Target protected from source by 6" pipe

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-306-3

PHOTOGRAPH NO.: M-323

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: TCV-130 (Lower center)

SOURCE: 2" City Water (Lower black arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-311-2

PHOTOGRAPH NO.: M-315

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-759A (Handwheel)

SOURCE: City Water(1-1/2") (Center- right arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

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VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-312-2

PHOTOGRAPH NO.: M-315

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-7 (3/4" V) (Not shown)

SOURCE: City Water (1-1/2") (Center- right arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82

INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-312-3

PHOTOGRAPH NO.: M-315

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-7 (3/4" V) (Not shown)

SOURCE: Station Air (3/4") (Center-left arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x

ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-313-3

PHOTOGRAPH NO.: M-315

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-4 (3/4" V) (Not shown)

SOURCE: Station Air (3/4") (Center- left arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 4

Target protected from source by being located under a 10" pipe.

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-314-1

PHOTOGRAPH NO.: M-315, M-316

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-759C (Bottom center)

SOURCE: Light Fixture (2 arrows at right)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-317-1

PHOTOGRAPH NO.: M-316

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-6 (3/4" V) (Not shown)

SOURCE: Light Fixture (2 arrows at right)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

POTENTIALLY UNACCEPTABLE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-317-4

PHOTOGRAPH NO.: M-316

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-6 (3/4" V) (Not shown)

SOURCE: Monorail Chain (2nd arrow from left)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE: E1 72' - 0"

POTENTIAL INTERACTION NO.: V9-320-2

PHOTOGRAPH NO.: M-316

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-763B (3/4" (Not shown)

SOURCE: Monorail Chain (2nd arrow from left)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x

ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

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POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE: E1 73' - 0"

POTENTIAL INTERACTION NO.: V9-322-2

PHOTOGRAPH NO.: M-316

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-8 (3/4" V) (Not shown)

SOURCE: Monorail Chain (2nd arrow from left)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE: E1 73'-0"

POTENTIAL INTERACTION NO.: V9-323-8

PHOTOGRAPH NO.: M-320

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-764B (Not shown)

SOURCE: 3/4" - #414 (2nd arrow from top)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

 x ACCEPTABLE

 POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE: E1 73'-0"

POTENTIAL INTERACTION NO.: V9-323-9

PHOTOGRAPH NO.: M-320

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-764B (Not shown)

SOURCE: Auxiliary Steam (3rd arrow from left)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

ACCEPTABLE

x POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE: E1 73'-0"

POTENTIAL INTERACTION NO.: V9-324-8

PHOTOGRAPH NO.: M-320

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-764A (Not shown)

SOURCE: 3/4" - #414 (2nd arrow from top)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-331-1

PHOTOGRAPH NO.: M-316

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: C.C. H-X #32 (Bottom center)

SOURCE: Light Fixtures (2 arrows at right)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY
UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W. Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-331-4

PHOTOGRAPH NO.: M-316

BACKGROUND NO.: 9-46

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: C.C. H-X #32 (Bottom center)

SOURCE: Monorail Chain (2nd arrow from left)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-335-5

PHOTOGRAPH NO.: M-319

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-834A (2") (Not shown)

SOURCE: 3/4" City Water (Top arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 27A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-336-5

PHOTOGRAPH NO.: M-319

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-834B (2") (Not shown)

SOURCE: 3/4" City Water (Top arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x
ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 32A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-344-1

PHOTOGRAPH NO.: M-321

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: A-39 (3/4" D) (Not shown)

SOURCE: Light Fixture (Arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 32A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-349-1

PHOTOGRAPH NO.: M-321

BACKGROUND NO.: 9-45

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Non-Regenerative Heat Exchanger (Bottom)

SOURCE: Light Fixture (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building
FIRE ZONE: 59A
LOCATION WITHIN FIRE ZONE: Piping Penetration
POTENTIAL INTERACTION NO.: V9-377-1
PHOTOGRAPH NO.: M-339
BACKGROUND NO.: 9-16

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-753J (Far bottom, 2nd valve from right)

SOURCE: 3" - #20 (Top center arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82

INTERACTION ENGINEER/DATE

W Griswold 9/22/82

VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 59A

LOCATION WITHIN FIRE ZONE: Piping Penetration

POTENTIAL INTERACTION NO.: V9-377-2

PHOTOGRAPH NO.: M-339

BACKGROUND NO.: 9-16

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-753J (Far bottom, 2nd valve from right)

SOURCE: Light Fixture (Arrow at right)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 3

x ACCEPTABLE

~~_____~~ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 79A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-384-1

PHOTOGRAPH NO.: M-411

BACKGROUND NO.: 9-14

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-815A (Not shown)

SOURCE: S. G. Blowdown Tank Room (All white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ ~~X~~ _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 79A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-386-1

PHOTOGRAPH NO.: M-411

BACKGROUND NO.: 9-14

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-817F (Not shown)

SOURCE: S. G. Blowdown Tank Room (All white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 79A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-387-1

PHOTOGRAPH NO.: M-411

BACKGROUND NO.: 9-14

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-817E (Not shown)

SOURCE: S. G. Blowdown Tank Room (All white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ X _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82

INTERACTION ENGINEER/DATE

W Griswold 9/22/82

VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Primary Auxiliary Building

FIRE ZONE: 79A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-394-1

PHOTOGRAPH NO.: M-411

BACKGROUND NO.: 9-20

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: S. G. Sample H-X #34 (Not shown)

SOURCE: S. G. Blowdown Tank Room (All white arrows)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W. Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fan House

FIRE ZONE: 88A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-398-1

PHOTOGRAPH NO.: M-418

BACKGROUND NO.: 9-20

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-753E (Not shown)

SOURCE: 8" Roof Drain (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fan House

FIRE ZONE: 88A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-401-1

PHOTOGRAPH NO.: M-417

BACKGROUND NO.: 9-19

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Auxiliary Cooling Pump #31 (Left side)

SOURCE: 8" Roof Drain (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fan House

FIRE ZONE: 88A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-402-1

PHOTOGRAPH NO.: M-418

BACKGROUND NO.: 9-20

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: Auxiliary Cooling Pump #32 (Center)

SOURCE: 8" Roof Drain (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82

INTERACTION ENGINEER/DATE

W Griswold 9/22/82

VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fan House

FIRE ZONE: 88A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-409-1

PHOTOGRAPHE NO.: M-418

BACKGROUND NO.: 9-20

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-753D (Not shown)

SOURCE: 8" Roof Drain (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82

INTERACTION ENGINEER/DATE

W Griswold 9/22/82

VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fan House

FIRE ZONE: 88A

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-412-1

PHOTOGRAPH NO.: M-417

BACKGROUND NO.: 9-19

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-752B (Far bottom, center left)

SOURCE: 8" Roof Drain (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fan House
FIRE ZONE: 88A
LOCATION WITHIN FIRE ZONE:
POTENTIAL INTERACTION NO.: V9-413-1
PHOTOGRAPH NO.: M-417
BACKGROUND NO.: 9-19

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-752C (Bottom left corner)

SOURCE: 8" Roof Drain (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fan House
FIRE ZONE: 88A
LOCATION WITHIN FIRE ZONE:
POTENTIAL INTERACTION NO.: V9-414-1
PHOTOGRAPH NO.: M-417
BACKGROUND NO.: 9-19

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-755A (Between pump motors)

SOURCE: 8" Roof Drain (White arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 6

_____ ACCEPTABLE

_____ x _____ POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

Ebasco Services Incorporated

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fuel Storage Building

FIRE ZONE: 90

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-417-3

PHOTOGRAPH NO.: M-334

BACKGROUND NO.: 9-86

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-803 (8") (Center)

SOURCE: 1" Auxiliary Steam (Top left arrow)

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 2

x ACCEPTABLE

~~POTENTIALLY UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/1/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fuel Storage Building

FIRE ZONE: 90

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-425-5

PHOTOGRAPH NO.: M-335

BACKGROUND NO.: 9-86

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: 1-1/2" Drain Valve

SOURCE: 3-AC-125

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x ACCEPTABLE

1 POTENTIALLY
~~UNACCEPTABLE~~

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fuel Storage Building

FIRE ZONE: 90

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-426-4

PHOTOGRAPH NO.: M-335

BACKGROUND NO.: 9-86

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: AC-8VK

SOURCE: 8-AC-327

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x

_____ ACCEPTABLE

_____ POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82

INTERACTION ENGINEER/DATE

W Griswold 9/22/82

VERIFIED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
NONCONNECTED SYSTEMS INTERACTION
EVALUATION SHEET

BUILDING: Fuel Storage Building

FIRE ZONE: 90

LOCATION WITHIN FIRE ZONE:

POTENTIAL INTERACTION NO.: V9-428-2

PHOTOGRAPH NO.: M-333

BACKGROUND NO.: 9-86

IDENTIFICATION OF INTERACTION COMPONENTS:

TARGET: S. F. Pit H-X

SOURCE: 8-AC-328

DESCRIPTION OF POSTULATED INTERACTION:

Source falls on target

EVALUATION OF INTERACTION:

EVALUATION NOTE NO: 1

x

ACCEPTABLE

POTENTIALLY
UNACCEPTABLE

D Mirkovic 9/1/82
INTERACTION ENGINEER/DATE

W Griswold 9/22/82
VERIFIED/DATE

Postulated Failure Modes

MECHANICAL FAILURES

- M - 1 Ruptured Pipe or Tube
- M - 2 Crimped or Collapsed Pipe or Tube
- M - 3 Loss of Function (Pump, Fan, Blowers etc.)
- M - 4 Loss of Valve Motive Power
- M - 5 Failure of or damage to Valve Actuating Mechanism
- M - 6 Other (Explain)

ELECTRICAL FAILURES

- E - 1 Open Circuit
- E - 2 Short Circuit
- E - 3 Other (Explain)

INSTRUMENTATION & CONTROL FAILURES

- C - 1 Fail High
- C - 2 Fail Low
- C - 3 Fail Open
- C - 4 Fail Closed
- C - 5 Loss of Motive Power
- C - 6 Other (Explain)

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
SYSTEM INTERACTION STUDY
FMEA PREPARATION

SYSTEM NO 9

SYSTEM NAME Component Cooling Water

FMEA CATEGORY

NON-CONNECTED X

INTERCONNECTED _____

Jean B. Dalessio 3-11-83
PREPARED BY/DATE

J.P. Ruggieri, Jr. 4/14/83
CHECKED BY/DATE

W.A. Griswold 5-13-83
VERIFIED BY/DATE

Ebasco Services Incorporated

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 SYSTEMS INTERACTION STUDY
FAILURE MODES AND EFFECTS ANALYSIS
OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-2

Interaction Number(s): L-9-8-3

Fire Zone: 70A

Target Component(s)
Number, Description & Function:

1-AC-14 Return line from RCP #33 motor cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

	<u>X</u>	/ 1 () 2 (X) 3 () 4 ()	
Acceptable			Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83			T P Ruggiero 4/14/83
EVALUATING ENGINEER/DATE			CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 SYSTEMS INTERACTION STUDY
FAILURE MODES AND EFFECTS ANALYSIS
OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-3

Interaction Number(s): L-9-13-5

Fire Zone: 70A

Target Component(s)
Number, Description & Function:

3/4-AC-379 line from #21A thru Relief Valve #783C to floor trench.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 SYSTEMS INTERACTION STUDY
FAILURE MODES AND EFFECTS ANALYSIS
OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-4

Interaction Number(s): L-9-16-6

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

I-AC-13A to RCP #31 motor cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

Acceptable	<div style="display: flex; justify-content: space-around; align-items: center;"> X / 1 () 2 (X) 3 () 4 () </div> Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 SYSTEMS INTERACTION STUDY
FAILURE MODES AND EFFECTS ANALYSIS
OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-5

Interaction Number(s): L-9-21-6

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

3-AC-14A Return line from RCP #31 motor cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

	<u>X</u>	/	1 ()	2 (X)	3 ()	4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 SYSTEMS INTERACTION STUDY
FAILURE MODES AND EFFECTS ANALYSIS
OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-6

Interaction Number(s): L-9-22-6

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

1-AC-14A Return line from RCP #31 motor cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

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FMEA NUMBER: 9-M-7

Interaction Number(s): L-9-24-6

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

1-AC-14B Return from RCP #32 motor cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-8

Interaction Number(s): L-9-25-11

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

3-AC-18 Return from Excess Letdown Heat Exchanger #31 (CVCS)

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

Acceptable

X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-9

Interaction Number(s): L-9-26-6

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

1 1/2-AC-21A Return from RCP #31 lower bearings..

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-10

Interaction Number(s): L-9-27-6

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

1 1/2-AC-21B Return from RCP #32 lower bearings.

Postulated Failure Modes(s)
and Evaluation:

M-1-P - See 9-M-1

Acceptable	X / 1 () 2 (X) 3 () 4 () Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

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FMEA NUMBER: 9-M-11

Interaction Number(s): L-9-28-11

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

2-AC-22 to Excess Letdown Heat Exchanger #31 (CVCS).

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-12

Interaction Number(s): L-9-31-1

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

2-AC-54A to Recirc Pump #32 cooler (SIS).

Postulated Failure Mode(s)
and Evaluation:

M-1-P - Loss of component cooling for Recirc Pump #32 (SIS).

	<u>X</u>	<u>/ 1 () 2 (X) 3 () 4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-13

Interaction Number(s): L-9-32-1

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

2-AC-55A Cooling Return Line from Recirc Pump #32 (SIS).

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12

Acceptable	X / 1 () 2 (X) 3 (X) 4 () Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

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FMEA NUMBER: 9-M-14

Interaction Number(s): L-9-34-4

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

3/4-AC-378 thru Relief Valve 783B to floor trench.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-1

Acceptable	X / 1 () 2 (X) 3 () 4 () Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

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FMEA NUMBER: 9-M-15

Interaction Number(s): L-9-116-4

Fire Zone: 1A

Target Component(s)
Number, Description & Function:

4-AC-320 Line from Flash Evaporator Product Cooler to Suction Line for
Component Cooling Pump #31. The flow and temperature indicators on
Line #320 are local only.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - Although a rupture in any component cooling line outside containment
may cause a combination alarm in the CCR, it requires verification
using a local flow indicator and the actuation of manually operated
valves to isolate the loop in question. If a number of interactions
occur simultaneously, there would be insufficient time for the
operators to isolate the leakage and insure component cooling
availability.

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-16

Interaction Number(s): L-9-117-5
L-9-117-8

Fire Zone: 1A

Target Component(s)
Number, Description & Function:

3/4-AC-320 Line thru Relief Valve 821G (set at 150 psig) which prevents over-pressurization of the component cooling side of the heat exchanger. Line bypasses Valves 1854 and 1805 on Line 4-AC-320.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

_____ X / 1 () 2 (X) 3 (X) 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-17

Interaction Number(s): L-9-118-5

Fire Zone: 1A

Target Component(s)
Number, Description & Function:

1-AC-320 from Relief Valve 821G to 4-AC-320.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-18

Interaction Number(s): L-9-125-2
L-9-125-3

Fire Zone: -4

Target Component(s)
Number, Description & Function:

1-AC-335 Provides component cooling to RHR Pump #31 seal cooling. Flow Indicator Controller FIC 646 alarms on the ACS panel in the CCR on low flow of 12 gpm. This alarm is common to the alarm for low flow from Pump #32 cooling. In event of such an alarm, a check will have to be made at the local flow indicators to determine which pump loop is at fault.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-19

Interaction Number(s): L-9-126-2
L-9-126-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

1-AC-336 Return line from RHR Pump #31 cooling to Line #52.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-20

Interaction Number(s): L-9-127-2
L-9-127-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

1-AC-657 Provides component cooling to RHR Pump #32 seal cooling. Flow Indicator Controller FIC 645 alarms on the ACS panel in the CCR on low flow of 12 gpm. This alarm is common with FIC 646 for low flow from Pump #31 cooling block. In the event of such an alarm, a check will have to be made at the local flow indicators to determine which pump loop is at fault.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/ 1 () 2 (X) 3 () 4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-21

Interaction Number(s): L-9-128-2
L-9-128-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

3/4-AC-657 Seal cooling for RHR Pump #32 Cooling Block.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

_____ X / 1 () 2 (X) 3 () 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-22

Interaction Number(s): L-9-129-2
L-9-129-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

1-AC-658 Return from seal cooling of RHR Pump #32 cooling block to Line #52.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-23

Interaction Number(s): L-9-130-2
L-9-130-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

3/4-AC-658 RHR Pump #32 seal cooling loop.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	X	/ 1 () 2 (X) 3 () 4 ()	Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE		T P Ruggiero 4/14/83 CHECKED/DATE	

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FMEA NUMBER: 9-M-24

Interaction Number(s): L-9-154-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

1-AC-122 Supplies cooling water to Safety Injection Pump #32 and SIS Pump #33 via Line #659. FIC 634B downstream of Pumps #32 and #33 on Line #123 alarms in the CCR on the ACS panel on low flow.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	X	/ 1 () 2 (X) 3 () 4 ()
		Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83		T P Ruggiero 4/14/83
EVALUATING ENGINEER/DATE		CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-25

Interaction Number(s): L-9-155-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

1-AC-123 Cooling water return from SIS Pumps #32 and #33.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	<div style="display: flex; justify-content: space-around; align-items: center;"> X / 1 () 2 (X) 3 () 4 () </div> Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-26

Interaction Number(s): L-9-159-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

1-AC-659. Supplies cooling water from Line #122 to SIS Pump #33.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-27

Interaction Number(s): L-9-160-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

1-AC-660 Cooling water return from SIS Pump #33 to Line #123.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-28

Interaction Number(s): L-9-170-3

Fire Zone: 17A

Target Component(s)
Number, Description & Function:

1-AC-248 From outlet line 16"-53A of Component Cooling Heat Exchanger #32 to Component Cooling Surge Tank #32. Valve 764B at surge tank is normally closed. FT601B on Line #53A indicates in the CCR a combined flow with FT601A on outlet line 16"-53 of Component Cooling Heat Exchanger #31.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-29

Interaction Number(s): L-9-171-3

Fire Zone: 17A

Target Component(s)
Number, Description & Function:

1-AC-249 From outlet line 16"-53 of Component Cooling Heat Exchanger #31 to
Component Cooling Surge Tank #31. Valve 764A at surge tank is
normally closed.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-31

Interaction Number(s): L-9-187-1

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

2-AC-452 Component Cooling Return Line from Waste Gas Compressor #31.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	/ 1 () 2 (X) 3 () 4 ()	
Acceptable	Potentially Unacceptable/Safety Function Affected		
J B Dalessio 3/11/83	T P Ruggiero 4/14/83		
EVALUATING ENGINEER/DATE	CHECKED/DATE		

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FMEA NUMBER: 9-M-32

Interaction Number(s): L-9-190-1

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

2-AC-454 Cooling line from Waste Evaporator Condenser #31 to 3"-#454. FI664 on line 3"-454 indicates locally. Air Operated Valve FCV 329 on 2" 454 at Condenser #31 is normally open.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

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FMEA NUMBER: 9-M-33

Interaction Number(s): L-9-191-1

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

2-AC-581 From line 3"-453 to Waste Evaporator Distillate Cooler. There are no flow indicators.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

_____ X / 1 () 2 (X) 3 () 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-34

Interaction Number(s): L-9-192-1
L-9-192-3

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

1-AC-619 Line #619 runs from 2"-#581 before Waste Evaporator Distillate Cooler thru Relief Valve 821E to line 3"-454 downstream of FI664. This line protects W.E.D.C from overpressurization.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-35

Interaction Number(s): L-9-193-1
L-9-193-3
L-9-193-5

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

3/4-AC-619 Portion of Line #619 from Line #581 to Relieve Valve 821E.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-36

Interaction Number(s): L-9-194-1
L-9-194-3

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

1-AC-731 Cooling Water Line from Waste Evaporator Distillate Cooler to line 3"-#454. FI 664 on line 3"-#454 indicates locally and measures the total flow from the Waste Evaporator Distillate Cooler and the Waste Evaporator Condenser #31.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	X / 1 () 2 (X) 3 () 4 () Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

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FMEA NUMBER: 9-M-37

Interaction Number(s): L-9-216-1
L-9-216-2

Fire Zone: 22A

Target Component(s)
Number, Description & Function:

1-AC-732 Line #732 bypasses Boric Acid Evaporator Package #32 thru Relief Valve 821B to line 6"-#516. This line protects the Boric Acid Evaporator Package from overpressurization.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 (-)	
Acceptable	Potentially Unacceptable/Safety Function Affected		
J B Dalessio 3/11/83	T P Ruggiero 4/14/83		
EVALUATING ENGINEER/DATE	CHECKED/DATE		

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FMEA NUMBER: 9-M-39

Interaction Number(s): L-9-218-3

Fire Zone: 22A

Target Component(s)
Number, Description & Function:

2-AC-733 Cooling from 4" - #515 to Boric Acid Evaporator Vent Condenser.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()	
Acceptable	Potentially Unacceptable/Safety Function Affected		
J B Dalessio 3/11/83	T P Ruggiero 4/14/33		
EVALUATING ENGINEER/DATE	CHECKED/DATE		

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-40

Interaction Number(s): L-9-219-3

Fire Zone: 22A

Target Component(s)
Number, Description & Function:

2-AC-734 Vent Condenser outlet to line 6" - #647. Outlet flow is measured
by FE 631B and indication is local.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-41

Interaction Number(s): L-9-229-2

Fire Zone: 24A

Target Component(s)
Number, Description & Function:

3/4-AC-472 from inlet of Boric Acid Evaporator Package #31 to Relief Valve
821A. This bypass protects the Boric Acid Evaporator Package from
overpressurization.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

_____ X / 1 () 2 (X) 3 () 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-42

Interaction Number(s): L-9-252-3
L-9-252-5

Fire Zone: 27A

Target Component(s)
Number, Description & Function:

1-AC-248 from outlet of Component Cooling Heat Exchanger #32 via line 53A
to Surge Tank #32.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-43

Interaction Number(s): L-9-253-3
L-9-253-5

Fire Zone: 27A

Target Component(s)
Number, Description & Function:

1-AC-249 from outlet of Component Cooling Heat Exchanger #31 via line 53
to Surge Tank #31.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-44

Interaction Number(s): L-9-261-5

Fire Zone: 58A

Target Component(s)
Number, Description & Function:

1-AC-656 Cooling water return from SIS pump #31 to line 8" - #168. FIC 634A
on line 656 alarms in the CCR on the ACS panel on low flow.

Postulated Failure Mode(s)
and Evaluation:

/ M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()	
Acceptable	Potentially Unacceptable/Safety Function Affected		
J B Dalessio 3/11/83	T P Ruggiero 4/14/83		
EVALUATING ENGINEER/DATE	CHECKED/DATE		

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-45

Interaction Number(s): L-9-262-1

Fire Zone: 58A

Target Component(s)
Number, Description & Function:

1-AC-657 Seal Cooling for RHR Pump #32 cooling block.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-46

Interaction Number(s): L-9-263-1

Fire Zone: 58A

Target Component(s)
Number, Description & Function:

1-AC-658 Return from seal cooling of RHR Pump #32 cooling block to
line #52.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/	1 ()	2 (X)	3 ()	4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

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FMEA NUMBER: 9-M-47

Interaction Number(s): L-9-277-1

Fire Zone: 58A

Target Component(s)
Number, Description & Function:

8-AC-168 from Boric Acid Evaporator Package #31 to line 16" - #52.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

<u>Acceptable</u>	<u>X</u> / 1 () 2 (X) 3 () 4 ()
	Potentially Unacceptable/Safety Function Affected
<u>J B Dalessio 3/11/83</u> EVALUATING ENGINEER/DATE	<u>T P Ruggiero 4/14/83</u> CHECKED/DATE

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FMEA NUMBER: 9-M-48

Interaction Number(s): L-9-279-5

Fire Zone: 58A

Target Component(s)
Number, Description & Function:

1-AC-655 supplies cooling from line #167 to SIS Pump #31.

See 9-M-44

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	X / 1 () 2 (X) 3 () 4 () Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-49

Interaction Number(s): L-9-297-1
L-9-297-2
L-9-297-9

Fire Zone: 59A

Target Component(s)
Number, Description & Function:

2-AC-55 Cooling Return line from Recirc Pump #31 (SIS)

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

	X	/	1 ()	2 (X)	3 ()	4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-51

Interaction Number(s): L-9-299-3
L-9-299-4

Fire Zone: 59A

Target Component(s)
Number, Description & Function:

2-AC-129 Cooling Line from line #22 to Steam Generator
Sample Heat Exchanger Loop 34

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-54

Interaction Number(s): L-9-305-1
L-9-305-2
L-9-305-3
L-9-305-4

Fire Zone: 59A

Target Component(s)
Number, Description & Function:

2-AC-840 Provides cooling water to Gross Failed Fuel Detector sample cooler from line #53A. FI657, downstream of sample cooler on line #841, indicates locally.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-55

Interaction Number(s): L-9-306-1
L-9-306-2
L-9-306-3
L-9-306-4

Fire Zone: 59A

Target Component(s)
Number, Description & Function:

2-AC-841 from Gross Failed Fuel Detector sample cooler to line #52A.
FI657 provides local indication.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-56

Interaction Number(s): L-9-309-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

2-AC-129 Steam Generator Sample Heat Exchangers Cooling Line.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	<u>X</u> / 1 () 2 (X) 3 () 4 () Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-57

Interaction Number(s): L-9-310-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-129 Steam Generator Sample Heat Exchanger loops Cooling line.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

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FMEA NUMBER: 9-M-58

Interaction Number(s): L-9-311-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

2-AC-133 Cooling Water Return line from Steam Generator Sample Heat Exchanger loops.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-59

Interaction Number(s): L-9-312-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-133 Cooling Water Return line from Steam Generator Sample Heat Exchanger loops.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-60

Interaction Number(s): L-9-313-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-631 Cooling water from line #129 to Steam Generator Sample Heat Exchanger
loop #31.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-61

Interaction Number(s): L-9-314-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-632 Cooling water from line #129 to Steam Generator Sample Heat Exchanger
loop #32.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	<div style="display: flex; justify-content: space-around; align-items: center;"> X / 1 () 2 (X) 3 () 4 () </div> Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-62

Interaction Number(s): L-9-315-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-633 Cooling Water from line #129 to Steam Generator Sample Heat Exchanger
loop #33.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

_____ X / 1 () 2 (X) 3 () 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-63

Interaction Number(s): L-9-316-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-634 Cooling Water Return from Steam Generator Sample Heat Exchanger
loop #33 to line #133.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()	
Acceptable	Potentially Unacceptable/Safety Function Affected		
J B Dalessio 3/11/83	T P Ruggiero 4/14/83		
EVALUATING ENGINEER/DATE	CHECKED/DATE		

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-64

Interaction Number(s): L-9-317-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-635 Cooling Water Return from Steam Generator Sample Heat Exchanger
loop #32 to line #133.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
J B Dalessio 3/11/83	T P Ruggiero 4/14/83					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-65

Interaction Number(s): L-9-318-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-636 Cooling Water Return from Steam Generator Sample Heat Exchanger
loop #34 to line #133.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-66

Interaction Number(s): L-9-319-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

1-AC-637 from line #129 thru relief valve 785A to line #133. Bypasses
Steam Generator Sample Heat Exchanger Loops for overpressurization
protection.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()	
Acceptable	Potentially Unacceptable/Safety Function Affected		
J B Dalessio 3/11/83	T P Ruggiero 4/14/83		
EVALUATING ENGINEER/DATE	CHECKED/DATE		

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FMEA NUMBER: 9-M-67

Interaction Number(s): L-9-320-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

3/4-AC-637 Overpressurization bypass for Steam Generator Sample Heat
Exchanger Loops.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-68

Interaction Number(s): L-9-321-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

2-AC-54 from Auxiliary Component Cooling Pump #32 to Recirc Pump #31 Cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

Acceptable

X / 1 () 2 (X) 3 () 4 ()

Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83

EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83

CHECKED/DATE

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FMEA NUMBER: 9-M-69

Interaction Number(s): L-9-322-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

1 1/2-AC-54 Auxiliary Component Cooling Pump #32 to Recirc Pump #31 Cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()	
Acceptable	Potentially Unacceptable/Safety Function Affected		
J B Dalessio 3/11/83		T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE		CHECKED/DATE	

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FMEA NUMBER: 9-M-70

Interaction Number(s): L-9-323-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

2-AC-54A from Auxiliary Component Cooling Pump #33 to Recirc Pump #32 Cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-71

Interaction Number(s): L-9-324-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

2-AC-457 from line #53 to Auxiliary Component Cooling Pumps #31 & #32 which
supply Component Cooling water to Recirc Pump #31 Cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-72

Interaction Number(s): L-9-325-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

1 1/2-AC-648 from Auxiliary Component Cooling Pump #31 to line #54 which
supplies cooling water to Recirc Pump #31 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

Acceptable / X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-73

Interaction Number(s): L-9-326-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

2-AC-649 from line #457 to line #54. This line bypasses Auxiliary
Component Cooling Pumps #31 & #32.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	X / 1 () 2 (X) 3 () 4 () Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

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FMEA NUMBER: 9-M-74

Interaction Number(s): L-9-327-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

2-AC-650 from line #22 to suction of Auxiliary Component Cooling Pumps #33
& 34.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-75

Interaction Number(s): L-9-328-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

2-AC-651 Discharge line from Auxiliary Component Cooling Pump #34 to
line #54A.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

Acceptable

X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-76

Interaction Number(s): L-9-329-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

1 1/2-AC-651 Discharge line from Auxiliary Component Cooling Pump #34
to line #54A.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-12 & 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-78

Interaction Number(s): L-9-333-3

Fire Zone: 90

Target Component(s)
Number, Description & Function:

3/4-AC-325 From Spent Fuel Pit Heat Exchanger #31 to line #52. Fl 603 on line #325 indicates locally.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

Acceptable	<div style="display: flex; justify-content: space-around; align-items: center;"> X / 1 () 2 (X) 3 () 4 () </div> Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

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FMEA NUMBER: 9-M-79

Interaction Number(s): V-9-34-3

Fire Zone: 71A

Target Component(s)
Number, Description & Function:

AC-A-22(D) Normally closed manually actuated drain valve on line #14A

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-83

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

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FMEA NUMBER: 9-M-80

Interaction Number(s): V-9-155-4
V-9-155-5

Fire Zone: 1A

Target Component(s)
Number, Description & Function:

AC-1853A (3/4") Normally open manually operated valve on sensing line for FI 647.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - Loss of Sensing line may result in loss of integrity of main line.
See 9-M-15

Acceptable X / 1 () 2 (X) 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
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FMEA NUMBER: 9-M-81

Interaction Number(s): V-9-156-4
V-9-156-5

Fire Zone: 1A

Target Component(s)
Number, Description & Function:

AC-1853B (3/4") See 9-M-80

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-80

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-82

Interaction Number(s): V-9-159-5

Fire Zone: 1A

Target Component(s)
Number, Description & Function:

AC-821G (R.V.) on line 3/4"-AC-320. Relief valve provides overpressurization protection by directing bypass flow downstream to main header.

Postulated Failure Mode(s)
and Evaluation:

M-6-A - If interaction causes relief valve to pop open and stay open then flow is bypassed and directed further downstream to main header.

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-83

Interaction Number(s): V-9-161-3

Fire Zone: 1A

Target Component(s)
Number, Description & Function:

A-52 (3/4"D) Manually operated normally closed drain valve on Flash Evaporator
Product Cooler.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - Opening of drain valve does not perform a safety function necessary
for safe shutdown.

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-84

Interaction Number(s): V-9-167-2
V-9-167-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

AC-1871A Manually operated normally open valve upstream of Pump Seal Heat Exchanger for RHR pump #32.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - Manual operation of valve is not postulated post a seismic event.
See 9-M-15

<u>X</u>	<u>/ 1 () 2 () 3 () 4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected
<u>J B Dalessio 3/11/83</u>	<u>T P Ruggiero 4/14/83</u>
EVALUATING ENGINEER/DATE	CHECKED/DATE

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FMEA NUMBER: 9-M-85

Interaction Number(s): V-9-168-2
V-9-168-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

AC-736B Manually operated normally open valve upstream of RHR pump #32
cooling block.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-86

Interaction Number(s): V-9-169-2

Fire Zone: 4

Target Component(s)
Number, Description & Function:

AC-737B Normally open manually operated valve on line #658 downstream of
RHR pump #32 cooling block.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-87

Interaction Number(s): V-9-170-2

Fire Zone: 4

Target Component(s)
Number, Description & Function:

AC-750D Check valve on line #658 downstream of RHR pump #32 cooling block.

Postulated Failure Mode(s)
and Evaluation:

M-6-A - Valve actuating Mechanism is internal to valve and will not be damaged.

X / 1 () 2 () 3 () 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-88

Interaction Number(s): V-9-171-2
V-9-171-3

Fire Zone: 4

Target Component(s)
Number, Description & Function:

AC-1871B Normally open manually operated valve on line #658.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-89

Interaction Number(s): V-9-192-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

AC-749B Normally open manually operated valve on line #122 upstream of SIS
pump #32 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-90

Interaction Number(s): V-9-193-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

ST-55 Strainer in line #122 upstream of SIS pump #32 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-91

Interaction Number(s): V-9-194-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

AC-750B Check valve on line #123 downstream of SIS pump #32 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-6-A - See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-92

Interaction Number(s): V-9-195-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

AC-749E Normally open manually operated globe valve downstream of SIS pump
#32 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

<u>X</u>	<u>/ 1 () 2 () 3 () 4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-93

Interaction Number(s): V-9-196-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

AC-787 Normally open manually actuated globe valve on line #123 downstream
of SIS pumps #32 & #33.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-94

Interaction Number(s): V-9-197-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

A-59-(3/4"D) Manually operated normally closed drain valve on line #123
downstream of SIS pumps #32 & #33.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-83

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-95

Interaction Number(s): V-9-203-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

AC-749C Normally open manually operated globe valve upstream of SIS pump
#33 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-96

Interaction Number(s): V-9-204-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

ST-56 Strainer in line #659 upstream of SIS pump #33 cooler.

Postulated Failure Modes(s)
and Evaluation:

M-1-P - See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-97

Interaction Number(s): V-9-205-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

AC-749F Normally open manually operated globe valve on line #660 downstream
of SIS pump #33 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-98

Interaction Number(s): V-9-206-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

AC-750C Check valve in line #660 downstream of SIS pump #33 cooler.

Postulated Failure Mode(s)
and Evaluation:

M-6-A - See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
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FMEA NUMBER: 9-M-99

Interaction Number(s): V-9-210-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

Circulating Water Pump #32

The component cooling water circulating pump is directly connected to the SIS pump drive motor shaft and supplies water through the cooling system. Cooling water is required on the tube side of each of two coolers supplying pump inboard and outboard seal water heat exchangers, and a single pump bearing oil cooler.

Postulated Failure Mode(s)
and Evaluation:

M-3-P - This is an Engineered Safeguards portion of Component Cooling System.

_____ X / 1 () 2 (X) 3 () 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
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FMEA NUMBER: 9-M-100

Interaction Number(s): V-9-211-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

B.W. Cooler #32 See FMEA 9-M-99

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See FMEA 9-M-99

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-101

Interaction Number(s): V-9-212-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

Oil Cooler #32 See FMEA 9-M-99

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See FMEA 9-M-99

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-102

Interaction Number(s): V-9-213-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

Circulating Water Pump #33 See 9-M-99

Postulated Failure Mode(s)
and Evaluation:

M-3-P - See 9-M-99

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-103

Interaction Number(s): V-9-214-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

B.W. Cooler #33 See 9-M-99

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-99

	X	/ 1 ()	2 (X)	3 ()	4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected				
J B Dalessio 3/11/83	T P Ruggiero 4/14/83				
EVALUATING ENGINEER/DATE	CHECKED/DATE				

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FMEA NUMBER: 9-M-104

Interaction Number(s): V-9-215-2

Fire Zone: 9

Target Component(s)
Number, Description & Function:

Oil Cooler #33 See 9-M-99

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-99

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-105

Interaction Number(s): V-9-231-1
V-9-231-5

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

A-48(3/4"V) Normally closed manually operated vent valve on line #453 upstream
of Waste Evaporator Condenser.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - Opening of vent valve is not necessary for safe shutdown.

<u>X</u>	/ 1 () 2 () 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected
<u>J B Dalessio 3/11/83</u>	<u>T P Ruggiero 4/14/83</u>
EVALUATING ENGINEER/DATE	CHECKED/DATE

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FMEA NUMBER: 9-M-106

Interaction Number(s): V-9-232-1
V-9-232-5

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

A-49(3/4"D) Normally closed manually operated drain valve.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-83

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-107

Interaction Number(s): V-9-238-1
V-9-238-2

Fire Zone: 19A

Target Component(s)
Number, Description & Function:

AC-821E (R.V) Provides Overpressurization protection by directing bypass
flow before the Waste Evaporator Distillate Cooler.

Postulated Failure Mode(s)
and Evaluation:

M-6-A - See 9-M-82

<u>X</u>	<u>/ 1 () 2 () 3 () 4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected
<u>J B Dalessio 3/11/83</u>	<u>T P Ruggiero 4/14/83</u>
EVALUATING ENGINEER/DATE	CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-108

Interaction Number(s): V-9-267-3

Fire Zone: 22A

Target Component(s)
Number, Description & Function:

AC-827D Normally open manually actuated globe valve downstream of Boric
Acid Evaporator Vent Condenser.

Postulated Failure Mode(s)
and Evaluation:

M-5-A - See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-109

Interaction Number(s): V-9-268-3

Fire Zone: 22A

Target Component(s)
Number, Description & Function:

AC-824G Normally open manually operated globe valve on sensing line for
FI-631B.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-80

	<u>X</u>	/ 1 ()	2 (X)	3 ()	4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected				
J B Dalessio 3/11/83	T P Ruggiero 4/14/83				
EVALUATING ENGINEER/DATE	CHECKED/DATE				

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-110

Interaction Number(s): V-9-269-3

Fire Zone: 22A

Target Component(s)
Number, Description & Function:

AC-824H Normally open manually actuated globe valve on sensing line for
FI-631B.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-80

Acceptable	<div style="display: flex; justify-content: space-around; align-items: center;"> X / 1 () 2 (X) 3 () 4 () </div> Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 SYSTEMS INTERACTION STUDY
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OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-111

Interaction Number(s): V-9-285-1

Fire Zone: 24A

Target Component(s)
Number, Description & Function:

AC-824A Normally open manually operated globe valve on sensing line for
FI-631A.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-80

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-112

Interaction Number(s): V-9-286-1

Fire Zone: 24A

Target Component(s)
Number, Description & Function:

AC-824B Normally open manually actuated globe valve on sensing line for
FI-631A.

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-80

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-113

Interaction Number(s): V-9-307-3

Fire Zone: 27A

Target Component(s)
Number, Description & Function:

812(R.V.) Provides overpressurization protection by directing bypass flow
downstream of valve TCV 130.

Postulated Failure Mode(s)
and Evaluation:

M-6-A - See 9-M-82

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-114

Interaction Number(s): V-9-310-2

Fire Zone: 27A

Target Component(s)
Number, Description & Function:

AC-763A (3/4") Manually operated valve on sensing line for PI 600A

Postulated Failure Mode(s)
and Evaluation:

M-1-P - See 9-M-80

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

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FMEA NUMBER: 9-M-115

Interaction Number(s): V-9-312-2

Fire Zone: 27A

Target Component(s)
Number, Description & Function:

A-7 (3/4"V) Normally closed manually operated vent valve on line #199
for maintenance procedures for Component Cooling Heat Exchangers
#31.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-105

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-116

Interaction Number(s): V-9-323-5
V-9-323-7
V-9-323-9

Fire Zone: 27A

Target Component(s)
Number, Description & Function:

AC-764B Normally closed manually operated valve on line #248 at Surge Tank.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-118

Interaction Number(s): V-9-375-1

Fire Zone: 59A

Target Component(s)
Number, Description & Function:

AC-752J Normally open manually operated valve on line #55.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

 X
Acceptable

 / 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

 J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

 T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-119

Interaction Number(s): V-9-376-1

Fire Zone: 59A

Target Component(s)
Number, Description & Function:

AC-752K Normally open manually operated valve on line #55.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B. Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-120

Interaction Number(s): V-9-377-1

Fire Zone: 59A

Target Component(s)
Number, Description & Function:

AC-753J Normally open manually operated valve on line #55A.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-121

Interaction Number(s): V-9-384-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

AC-815A Normally open manually operated valve on line #129 which provides cooling water to Steam Generator Sample Heat Exchangers.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-122

Interaction Number(s): V-9-385-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

AC-815B Normally open manually operated valve on line #133 which is cooling
return line from Steam Generator Sample Heat Exchangers.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-123

Interaction Number(s): V-9-386-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

AC-817F Normally open manually operated valve on cooling line #634 discharging
from Steam Generator Sample Heat Exchanger loop #33.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-124

Interaction Number(s): V-9-387-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

AC-817E N.O. manual on cooling line #635 which exits Steam Generator
Sample Heat Exchanger loop #32.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-125

Interaction Number(s): V-9-388-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

AC-817G N.O. manual on cooling line #636 which exits Steam Generator
Sample Heat Exchanger loop #34.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-126

Interaction Number(s): V-9-389-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

AC-785A (3/4" RV) Provides overpressurization protection by directing
bypass flow to downstream of Steam Generator Sample
Heat Exchanger Loops.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-82

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-127

Interaction Number(s): V-9-390-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

AC-817D N.O. Manual On line #133 which exits Steam Generator Sample
Heat Exchanger loop #31.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-128

Interaction Number(s): V-9-391-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

S.G. Sample H-X #31

Postulated Failure Mode(s)
and Evaluation:

M-1-P See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-129

Interaction Number(s): V-9-392-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

S.G. Sample H-X #32

Postulated Failure Modes(s)
and Evaluation:

M-1-P See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

POWER AUTHORITY OF THE STATE OF NEW YORK
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OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-130

Interaction Number(s): V-9-393-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

S.G. Sample H-X #33

Postulated Failure Mode(s)
and Evaluation:

M-1-P See 9-M-15

	X	/ 1 () 2 (X) 3 () 4 ()	
Acceptable			Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83			T P Ruggiero 4/14/83
EVALUATING ENGINEER/DATE			CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-131

Interaction Number(s): V-9-394-1

Fire Zone: 79A

Target Component(s)
Number, Description & Function:

S.G. Sample H-X #34

Postulated Failure Mode(s)
and Evaluation:

M-1-P See 9-M-15

Acceptable

X / 1 () 2 (X) 3 () 4 ()

Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-132

Interaction Number(s): V-9-395-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-753A N.O. manual on suction line (#650) for Auxiliary Component Cooling
Water Pumps #33 & #34.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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POWER AUTHORITY OF THE STATE OF NEW YORK
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OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-133

Interaction Number(s): V-9-396-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-753B N.O. manual on suction line for Auxiliary Component Cooling
Pump #33.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

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FMEA NUMBER: 9-M-134

Interaction Number(s): V-9-397-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-753C N.O. manual on suction line for Auxiliary Component Cooling
Pump #34.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-135

Interaction Number(s): V-9-398-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-753E N.O. manual on discharge line from Aux. C C Pump #34.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-136

Interaction Number(s): V-9-399-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-755F Check valve on discharge of Aux C C Pump #34.

Postulated Failure Mode(s)
and Evaluation:

M-6-A See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-137

Interaction Number(s): V-9-400-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-755D Check valve on bypass line for Aux C C Pumps #33 & #34.

Postulated Failure Mode(s)
and Evaluation:

M-6-A See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-138

Interaction Number(s): V-9-401-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

Aux Cooling Pump #31. The Auxiliary Component Cooling Pumps are the vertical/
centrifugal type booster pumps supplying cooling water to the Recirculation
Pump (SIS) motors cooling coils.

Postulated Failure Modes(s)
and Evaluation:

M-3-P

The Auxiliary Component Cooling Pumps are started during the injection phase
of Safety Injection and protect the recirculating pump motors from the
containment atmosphere at accident conditions.

_____ X / 1 () 2 (X) 3 () 4 ()
Acceptable Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-139

Interaction Number(s): V-9-402-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

Aux Cooling Pump #32.

See 9-M-137

Postulated Failure Modes(s)
and Evaluation:

M-3-P See 9-M-137

	<u>X</u>	<u>/</u>	<u>1 ()</u>	<u>2 (X)</u>	<u>3 ()</u>	<u>4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected					
<u>J B Dalessio 3/11/83</u>	<u>T P Ruggiero 4/14/83</u>					
EVALUATING ENGINEER/DATE	CHECKED/DATE					

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FMEA NUMBER: 9-M-140

Interaction Number(s): V-9-403-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

Aux Cooling Pump #33.

See 9-M-137

Postulated Failure Mode(s)
and Evaluation:

M-3-P See 9-M-137

	X	/ 1 () 2 (X) 3 () 4 ()
Acceptable	Potentially Unacceptable/Safety Function Affected	
J B Dalessio 3/11/83	T P Ruggiero 4/14/83	
EVALUATING ENGINEER/DATE	CHECKED/DATE	

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-141

Interaction Number(s): V-9-404-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

Aux Cooling Pump #34.

See 9-M-137

Postulated Failure Mode(s)
and Evaluation:

M-3-P See 9-M-137

Acceptable	<div style="display: flex; justify-content: space-around; align-items: center;"> X / 1 () 2 (X) 3 () 4 () </div> Potentially Unacceptable/Safety Function Affected
J B Dalessio 3/11/83 EVALUATING ENGINEER/DATE	T P Ruggiero 4/14/83 CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-142

Interaction Number(s): V-9-405-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-752E N O manual on discharge line of Aux C C pump #32.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-143

Interaction Number(s): V-9-406-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-752D On discharge line of Aux C C pump #31.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
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FMEA NUMBER: 9-M-144

Interaction Number(s): V-9-407-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-755B Check valve on discharge of Aux C C pump #31.

Postulated Failure Mode(s)
and Evaluation:

M-6-A See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-145

Interaction Number(s): V-9-408-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-755C Check valve on discharge of Aux C C pump #32.

Postulated Failure Mode(s)
and Evaluation:

M-6-A See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-146

Interaction Number(s): V-9-409-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-753D N O manual on discharge of Aux C C pump #33.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

<u>X</u>	<u>/ 1 () 2 () 3 () 4 ()</u>
Acceptable	Potentially Unacceptable/Safety Function Affected
<u>J B Dalessio 3/11/83</u>	<u>T P Ruggiero 4/14/83</u>
EVALUATING ENGINEER/DATE	CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 SYSTEMS INTERACTION STUDY
FAILURE MODES AND EFFECTS ANALYSIS
OF POTENTIALLY UNACCEPTABLE INTERACTIONS

FMEA NUMBER: 9-M-147

Interaction Number(s): V-9-410-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-755E Check valve on discharge of Aux C C pump #33.

Postulated Failure Mode(s)
and Evaluation:

M-6-A See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-148

Interaction Number(s): V-9-411-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-752A N O manual on suction line for Aux C C pump #31 & #32.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-149

Interaction Number(s): V-9-412-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-752B N O manual on suction for Aux C C pump #31.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

POWER AUTHORITY OF THE STATE OF NEW YORK
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FMEA NUMBER: 9-M-150

Interaction Number(s): V-9-413-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-752C N O manual on suction for Aux C C pump #32.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-84

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-151

Interaction Number(s): V-9-414-1

Fire Zone: 88A

Target Component(s)
Number, Description & Function:

AC-755A Check valve on bypass for Aux C C pumps #31 & #32.

Postulated Failure Mode(s)
and Evaluation:

M-6-A See 9-M-87

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-152

Interaction Number(s): V-9-422-3

Fire Zone: 90

Target Component(s)
Number, Description & Function:

A-23 (3/4" V) on line #325. Normally closed manually operated vent valve
used for maintenance on Spent Fuel Pit Heat Exchanger.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-105

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-153

Interaction Number(s): V-9-423-3

Fire Zone: 90

Target Component(s)
Number, Description & Function:

AC-802 (R V) Provides overpressurization protection by directing bypass
flow downstream of valve 804.

Postulated Failure Mode(s)
and Evaluation:

M-6-A See 9-M-82

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE

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FMEA NUMBER: 9-M-154

Interaction Number(s): V-9-429-3

Fire Zone: 90

Target Component(s)
Number, Description & Function:

A-1856A (3/4" V) on H-X. N C manually operated vent valve used for maintenance
on Spent Fuel Pit Heat Exchanger.

Postulated Failure Mode(s)
and Evaluation:

M-5-A See 9-M-105

X
Acceptable

/ 1 () 2 () 3 () 4 ()
Potentially Unacceptable/Safety Function Affected

J B Dalessio 3/11/83
EVALUATING ENGINEER/DATE

T P Ruggiero 4/14/83
CHECKED/DATE