Northeast Utilities
Millstone - Unit 3

Independent Corrective Action Verification Program
(ICAVP)

Modification Review Checklist

CK-MP3-03-02, Rev. 2

Modification Screening Checklist

| | | | |
|---|---|---|---|
| Prepared by: | J. C. TOWNSEND | | 5/14/97 |
| | Name | Signature | Date |
| Approved by: | A.A. NERI | | 5/14/97 |
| | Name | Signature | Date |

| IMPLEMENTATION | |
|---|---|
| System | |
| Modification No. | |
| Lead Verifier | |
| SRG Lead | |

**Modification Screening Checklist**

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## Instructions

This checklists supplements project instruction PI-MP3-03 and provides instructions for screening modifications for the purpose of identifying elements which require a detailed review. The checklist addresses various subjects and refers to various NU programs and documents. Prior to utilizing this checklist, the Lead Verifier and/or Verifiers shall read the NU documents to become familiar with Millstone's specific requirements. Use of this checklist shall be as follows:

1. The SRG Lead shall assign a Lead Verifier from the applicable discipline.

2. The Lead Verifier shall perform the screening by answering the questions on the checklist.

3. The Lead Verifier shall initial each response.

4. The Lead Verifier may request assistance from the discipline Verifiers as needed. Discipline Verifiers shall initial the responses they provide.

5. The Lead Verifier shall assemble the completed checklist by entering the system identifier and modification number in the titleblock on each sheet. The Lead Verifier shall also number the checklist pages sequentially and sign and date the cover sheet.

6. The SRG Lead shall indicate his concurrence that the checklists have been completed by signing and dating the cover sheet.

7. For elements determined to be affected, the Lead Verifier shall distribute checklists and the modification package to applicable discipline verifier for detailed review.

Modification Screening Checklist

## Modification Screening Summary

| Review Attribute | Affected Yes | Affected No | Initials |
|---|---|---|---|
| Mechanical System Design | _____ | _____ | _____ |
| Electrical Design | _____ | _____ | _____ |
| I&C Design | _____ | _____ | _____ |
| Structural Design | _____ | _____ | _____ |
| ALARA | _____ | _____ | _____ |
| Security | _____ | _____ | _____ |
| Appendix R Compliance | _____ | _____ | _____ |
| Electrical Equipment Qualification | _____ | _____ | _____ |
| Seismic Qualification | _____ | _____ | _____ |
| Radiological Environment | _____ | _____ | _____ |
| Non-Radiological Environment | _____ | _____ | _____ |
| Station Blackout | _____ | _____ | _____ |
| Control Panel Design | _____ | _____ | _____ |
| Piping Design Review | _____ | _____ | _____ |
| Setpoint Database | _____ | _____ | _____ |
| Hazards/HELB | _____ | _____ | _____ |
| Fire Protection | _____ | _____ | _____ |
| PRA | _____ | _____ | _____ |
| Training Procedures | _____ | _____ | _____ |
| Emergency Preparedness Plan | _____ | _____ | _____ |
| Plant Procedures | _____ | _____ | _____ |
| Configuration Change | _____ | _____ | _____ |
| Quality Software Design Review | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Mechanical System Design

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the modification affect mechanical or ventilation systems or components.? | _____ | _____ | _____ |
| 2. | Does this modification affect piping systems? | _____ | _____ | _____ |
| 3. | Does this modification alter or penetrate any barriers (i.e. HELB, fire, $CO_2$ halon, ventilation, water, flooding, tornado, radiation, etc.)? | _____ | _____ | _____ |
| 4. | Will the change increase the potential for flooding, reduce the capability to isolate or cope with local flooding or locate essential equipment where it would be susceptible to flooding? | _____ | _____ | _____ |
| 5. | Does this modification add insulation inside the containment which is of a different type than that already used inside containment? | _____ | _____ | _____ |
| 6. | Does this modification increase aluminum or add paint or coatings of a different type than that already used inside containment? | _____ | _____ | _____ |
| 7. | Does this modification affect mechanical analysis or calculations such as thermal loading, flow and pressure drop evaluations? | _____ | _____ | _____ |
| 8. | Does this modification affect mechanical drawings, data sheets, lists or databases, or other mechanical documents? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Electrical Design

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-04.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does this modification alter, add or delete cables, raceways or physical separation barriers (e.g., use of theraset flame retardant electrical insulating materials, siltemp-wrap, armoring, flex conduit, etc.)? | _____ | _____ | _____ |
| 2. | Does this modification add hot piping, valves, pipe fittings or any other device that generates heat such that the installation of these components are within close proximity (less than 30 inches) of electrical raceways, (conduits, trays) or cables or could otherwise significantly impact ambient operating temperatures of electrical equipment? | _____ | _____ | _____ |
| 3. | Does this modification change, add or delete any electrical loads, or alter the loading sequence on any electrical bus? | _____ | _____ | _____ |
| 4. | Does this modification change, add, or delete a motor or MOV, alter the control circuit to an existing motor or MOV, or change the stroke time of any MOV? | _____ | _____ | _____ |
| 5. | Does this modification add or alter a circuit which utilizes a containment electrical penetration? | _____ | _____ | _____ |
| 6. | Does this modification revise a relay setting or alter, add, or delete in any way a protective device, alarm, or indication (i.e. fuse, breaker, undervoltage, underfrequency tol etc.)? | _____ | _____ | _____ |
| 7. | Does this modification add or alter a structure which would affect the lightning protection and/or grounding system? | _____ | _____ | _____ |
| 8. | Does this modification add to or alter the wiring, insulation, or connections in a control panel? | _____ | _____ | _____ |

**Modification Screening Checklist**

| | | No | Yes | Initials |
|---|---|---|---|---|
| 9. | Does this modification alter or affect in any way the equipment or structures which interface with any offsite power source or Switchyard or affect the HVAC requirements of any onsite power source enclosure (i.e. EDG, Battery or Inverter Room)? | _____ | _____ | _____ |
| 10. | Does this modification affect electrical drawings, datasheets, lists or databases, etc.? | _____ | _____ | _____ |
| 11. | Does this modification affect electrical calculations, such as equipment sizing, voltage drop, setpoints, overcurrent protection? | _____ | _____ | _____ |

**Modification Screening Checklist**

## I&C Design

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-05.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the design affect the process parameters, which could require setpoint or calibration changes? | ____ | ____ | ____ |
| 2. | Does the design require any indication, alarms or protective interlocks with existing equipment? | ____ | ____ | ____ |
| 3. | Does the design install or modify the wiring or terminations inside panels? | ____ | ____ | ____ |
| 4. | Does the design add, delete or modify any existing protection, control or indication loops? | ____ | ____ | ____ |
| 5. | Does the design add, delete, modify any microprocessor-based instrumentation? | ____ | ____ | ____ |
| 6. | Does the design affect the electrical and mechanical separation requirement as applied to the channelization of protection loops? | ____ | ____ | ____ |
| 7. | Does the design add, delete or modify the tubing or tubing tray for any instrument loops? | ____ | ____ | ____ |
| 8. | Does the design add, delete or modify air loading on the control or station air systems? | ____ | ____ | ____ |
| 9. | Does the design affect instrumentation which provides input to the plant process computer? | ____ | ____ | ____ |
| 10. | Does the design change environmental parameters of an area containing safety-related instrumentation? | ____ | ____ | ____ |

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## Structural Design

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-06.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the modification add, modify or delete piping or pipe supports? | _____ | _____ | _____ |
| 2. | Does the modification add, modify or delete any equipment mounted to floors or walls or steel beams? | _____ | _____ | _____ |
| 3. | Does the modification add, delete or modify electrical raceway or raceway supports? | _____ | _____ | _____ |
| 4. | Does the modification add, delete or modify HVAC ductwork or ductwork supports? | _____ | _____ | _____ |
| 5. | Does the modification add, delete or modify access platforms? | _____ | _____ | _____ |
| 6. | Does the modification require concrete excavation for anchor bolts, core drills, etc.? | _____ | _____ | _____ |
| 7. | Does the modification affect site facilities such as buildings, fences, roadways, parking lots, buried commodoties or site drainage? | _____ | _____ | _____ |
| 8. | Does the modification require breaking of any outer walls? | _____ | _____ | _____ |
| 9. | Does the modification involve heavy load considerations? | _____ | _____ | _____ |
| 10. | Does this modification involve painting or coating activities? | _____ | _____ | _____ |
| 11. | Does this modification affect structural drawings or analysis? | _____ | _____ | _____ |

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## ALARA Design

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-07.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Did the modification alter systems which contain or could contain radioactivity (e.g., liquid, gaseous, or solid radwaste; HVAC in contaminated areas; post-accident recovery systems, etc.)? | _____ | _____ | _____ |
| 2. | Did the modification alter parts of components that could be in a flow path leading to the reactor core? | _____ | _____ | _____ |
| 3. | Did the modification alter, delete or add radiation shields? | _____ | _____ | _____ |
| 4. | Was the estimated additional annual operating and maintenance dose from this modification greater than 1.0 person-rem? | _____ | _____ | _____ |
| 5. | Will this project involve process, area, or airborne radiation monitoring equipment? | _____ | _____ | _____ |
| 6. | Was any work performed inside radiological posted areas? | _____ | _____ | _____ |
| 7. | Is there a possibility of coming in contact with contaminated liquid? | _____ | _____ | _____ |
| 8. | Is there a possibility of coming in contact with airborne radioactivity? | _____ | _____ | _____ |
| 9. | Is the estimated installation dose from this modification greater than 1.0 person-rem? | _____ | _____ | _____ |

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## Security

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-08.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Will the work process or the design change create any openings in the Protected Area Barrier? | _____ | _____ | _____ |
| 2. | Will the work process or the design change create any openings or require opening systems that penetrate the Vital Area Barrier (e.g., service water, circulating water, ventilation systems)? Will the work process require the opening of any door, roof, or floor plug that forms a portion of a Vital Area Barrier? | _____ | _____ | _____ |
| 3. | Will the work process or the design change affect the Security System Power Supply, the Security Diesel Generator, the Security CCTV System or minimum lighting? | _____ | _____ | _____ |
| 4. | Will the work process or the design change affect Security in any other way, or will Security support be required? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Appendix R Compliance

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-09.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Will the change alter the access/egress routes and/or the emergency lighting paths? The access/egress routes and emergency lighting locations are specified on drawings contained in each compliance report. | ____ | ____ | _____ |
| 2. | Will the change alter the design or operation of any component utilized for reactor shutdown? These components are identified in the compliance report equipment listing section. | ____ | ____ | _____ |
| 3. | Will the change alter the location, functionability, design, or material requirements of fire suppression or detection system, fire barriers on cabling wraps, structural steel coating, or fire dampers in areas associated with Items 1 and 2 above? | ____ | ____ | _____ |
| 4. | Will the change alter the configuration of shutdown components of Item 2 by introducing combustible material near or between these components? | ____ | ____ | _____ |
| 5. | Will the change alter the power or control cabling configuration to any of the shutdown components of Item 2? | ____ | ____ | _____ |
| 6. | Will the change alter any communication systems that are utilized during plant shutdown following a fire? The Unit Compliance Report Communication Section identifies the communication systems needed for Appendix R Compliance. | ____ | ____ | _____ |
| 7. | Will the change alter the reactor coolant pump oil collection system? | ____ | ____ | _____ |
| 8. | Will the change add additional electrical or mechanical components whose failure or malfunction could prevent or degrade a plant shutdown after a fire? The necessary components are described in the Unit's shutdown Equipment and Methods Section in the Compliance Report. | ____ | ____ | _____ |

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## Electrical Equipment Qualification

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-10.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the proposed design change modify the installation or configuration of any equipment or associated component listed on the EEQ Master List? | ____ | ____ | _____ |
| 2. | Does the proposed design change add any electrical system or portion of an electrical system credited for accident mitigation component where the equipment is located in a harsh environment? | ____ | ____ | _____ |
| 3. | Does the proposed design change alter the electrical portion of any accident mitigating or monitoring system (including cable and interfaces) located in an area where the environment is affected by an accident? | ____ | ____ | _____ |
| 4. | Does the proposed design change credit any electrical system or portion thereof which is located in a harsh environment, which has not previously been credited for accident mitigating or monitoring? | ____ | ____ | _____ |
| 5. | Does the proposed design change alter the operating time during any phase of the accident when the devise is called on to function, or alter the time during of operation? | ____ | ____ | _____ |
| 6. | Does the proposed design change the accuracy requirements of any instrument credited during or following an accident, including the R.G. 1.97 instruments, where the instrument is located in a harsh environment? | ____ | ____ | _____ |
| 7. | Does the proposed design change alter the physical arrangement or boundary of any EQ Zone, including doors, hatches, ductwork, piping or electrical penetrations and structural walls, which could affect the basis of the HELB analysis? | ____ | ____ | _____ |

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| | | No | Yes | Initials |
|---|---|---|---|---|
| 8. | Does the proposed design change affect area ventilation flows: | | | |
| | a. open or seal flow paths in boundary? | | | |
| | b. change duct configuration (i.e., duct size, routing, GRDs)? | | | |
| | c. change duct velocity at fire dampers? | | | |
| | d. change duct velocity at elbow turning vanes? | | | |
| | e. change duct velocity at FES, silencers, or RS? | | | |
| | f. change supply air temperature? | | | |
| 9. | Does the proposed design change revise area design environmental parameters (maximum/minimum temperature, relative humidity, pressure or radiation dose for normal or abnormal modes)? | | | |
| 10. | Does the proposed design change increase or decrease area heating/cooling loads? | | | |
| | a. electrical equipment loads? | | | |
| | b. control equipment loads? | | | |
| | c. lightning loads? | | | |
| | d. cable loads? | | | |
| | e. motor loads (operating bhp or nameplate Hp increase)? | | | |
| | f. piping loads (line temperature increases, insulation thickness decrease or removal, size increase, length increase)? | | | |
| | g. pipe support loads (line temperature/size, support type, number of supports)? | | | |

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| | | | No | Yes | Initials |
|---|---|---|---|---|---|
| | h. | piping valves (temperature increase, size increase, quantity increase)? | _____ | _____ | _____ |
| | i. | transmission loads (room construction)? | _____ | _____ | _____ |
| | j. | number of people in area? | _____ | _____ | _____ |
| | k. | mechanical equipment (tanks/vessels temperature, insulation, quantity)? | _____ | _____ | _____ |
| | l. | ventilation flows? | _____ | _____ | _____ |
| | m. | steam or water leaks? | _____ | _____ | _____ |
| 12. | | Does the proposed design change affect HVAC equipment performance? | _____ | _____ | _____ |
| | a. | fans (flow temperature, pressure, speed, blade setting)? | _____ | _____ | _____ |
| | b. | coils (air/water flows, air/water temperature, airside/waterside fouling)? (This includes foreign material spilled and hardened on the face of a coil or equipment located in front of and blocking an HVAC duct.) | _____ | _____ | _____ |
| | c. | refrigeration equipment (condenser/evaporator operating conditions, refrigeration piping)? | _____ | _____ | _____ |
| | d. | filters (flow, loading)? | _____ | _____ | _____ |
| 13. | | Does the proposed design change affect the amount of $H_2$ released to space (i.e., batteries)? | _____ | _____ | _____ |
| 14. | | Does the proposed design change revise the use for the area? | _____ | _____ | _____ |
| 15. | | Does the proposed design change affect the quantity/type of hazardous materials stored in space? | _____ | _____ | _____ |

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| | | No | Yes | Initials |
|---|---|---|---|---|
| 16. | Does the proposed design change affect HVAC system or equipment instrument setpoints? | _____ | _____ | _____ |
| a. | time delay relays? | _____ | _____ | _____ |
| b. | flow controllers, switches, transmitters, relays? | _____ | _____ | _____ |
| c. | temperature controllers, switches, transmitters, relays? | _____ | _____ | _____ |
| d. | pressure controllers, switches, transmitters, relays? | _____ | _____ | _____ |
| e. | humidity controllers, switches, transmitters, relays? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Seismic Qualification

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-11.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the design change provide for the installation of the new Seismic Category I structures, systems, or components? | _____ | _____ | _____ |
| 2. | Does the design change provide for the installation, replacement modification, or removal of equipment which could effect the seismic response of Seismic Category I structures, systems, or components? | _____ | _____ | _____ |
| 3. | Does the design change alter the state or condition during normal or accident scenarios for previously qualified equipment? | _____ | _____ | _____ |
| 4. | Does the design change modify or alter the mounting condition of existing Seismic Category I equipment? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Radiological Environment

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-12.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Will the change cause an increase or potential increase in the amount of radioactive airborne effluents or liquid effluents, or significantly alter the nuclide mix of such effluents? | _____ | _____ | _____ |
| 2. | Will the change result in a new radioactive liquid or gaseous discharge point, or decrease the ability to sample or monitor existing release paths? | _____ | _____ | _____ |
| 3. | Will the change significantly increase (for example, greater than five per year) the number of solid radwaste shipments per year? | _____ | _____ | _____ |
| 4. | Will the change cause an increase in the direct or scattered dose rate at the site boundary greater than 0.1 mrem/year? | _____ | _____ | _____ |
| 5. | Will the change, in the judgment of the individual performing the review, constitute an increased radiological environmental impact for reasons not already considered above? | _____ | _____ | _____ |

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## Non-Radiological Environment

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-13.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the proposed design/Procedure alter the water quality characteristics regulated by NPDES permit? Increases in these characteristics that exceed permit conditions require environmental review. | _____ | _____ | _____ |
| 2. | Does the proposed design change/procedure modify water discharges under NPDES permit and their Discharge Serial Numbers? New discharges created by the proposed change require environmental review. Modifications to existing discharges require environmental evaluation to determine whether an environmental review is required. | _____ | _____ | _____ |
| 3. | Does the proposed change alter the type or amount of fossil fuel burned? | _____ | _____ | _____ |
| 4. | Does the proposed change create a source of air pollution? | _____ | _____ | _____ |
| 5. | Does the proposed change involve use of a volatile chemical? | _____ | _____ | _____ |
| 6. | Does the proposed change involve the use, storage, handling or disposal of a chemical product at variance with the BMP? | _____ | _____ | _____ |
| 7. | Does the proposed change involve the generation, use, storage, or disposal hazardous materials, hazardous wastes, toxic substances, or other environmentally regulated matter? | _____ | _____ | _____ |
| 8. | Does the proposed change involve a construction site area greater than five acres? | _____ | _____ | _____ |
| 9. | Does the proposed change involve any other known environmental issues or regulations? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Station Blackout

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-14.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Will the change alter the design or operation of any SBO equipment? SBO equipment is identified in the Production Maintenance Management System (PMMS) Database? | _____ | _____ | _____ |
| 2. | Will the change potentially impact the operation of any SBO equipment (i.e., non-SBO equipment potentially affecting SBO equipment operation)? | _____ | _____ | _____ |
| 3. | Will the change alter the determination of dominant areas of concern or impact the results of analysis which determined dominant areas of concern (i.e., increase the area temperature)? | _____ | _____ | _____ |

**Modification Screening Checklist**

## Control Panel Design

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-15.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the proposed modification occur in the control room or at local panels? | _____ | _____ | _____ |
| 2. | Does the proposed modification involve the installation or change of equipment that restricts operator or maintenance personnel movement at local panels or change to the communications equipment at local panels? | _____ | _____ | _____ |
| 3. | Does the proposed modification involve the location, layout and capability of the user-computer interface (access) devices? | _____ | _____ | _____ |
| 4. | Does the proposed modification involve the change of information or display characteristics of any system? | _____ | _____ | _____ |

**Modification Screening Checklist**

## Piping Design

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-16.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does this design change involve a piping arrangement change (i.e., new pipe, rerouting of existing pipe, or complete or partial deletion of piping)? | _____ | _____ | _____ |
| 2. | Does this design change involve a permanent change in piping inventory (for example, steam service to water service)? | _____ | _____ | _____ |
| 3. | Does this design change involve an addition, deletion or modification of any in-line component? | _____ | _____ | _____ |
| 4. | Does this design change involve a change in orientation of an existing in-line component? | _____ | _____ | _____ |
| 5. | Does this design change involve a change in piping material or wall thickness? | _____ | _____ | _____ |
| 6. | Does this design change involve a change in piping system design parameters or classification (i.e., Operating/Design Temperature or Pressure; Code Class)? | _____ | _____ | _____ |
| 7. | Does this design change involve the addition, removal or modification of insulation on piping? | _____ | _____ | _____ |
| 8. | Does this design change involve the addition, removal or modification of lead shielding supported by piping. | _____ | _____ | _____ |
| 9. | Does this design change involve the addition, removal, modification of any piping appurtenance supported by existing piping. | _____ | _____ | _____ |

Modification Screening Checklist

## Setpoint Database

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-17.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the design change add, delete or change any setpoint in the Master Setpoint Index (MSI) database? | _____ | _____ | _____ |
| 2. | Does the design change reference information in the MSI such as database description, type of setpoint description, controlling department, responsible person, or mechanism of control? | _____ | _____ | _____ |
| 3. | Does this modification alter the loading sequence on any electrical bus? | _____ | _____ | _____ |
| 4. | Does this modification revise a relay setting or alter, add or delete in any way a protective device (i.e. fuse, breaker, undervoltage, under frequency tol, etc.)? | _____ | _____ | _____ |
| 5. | Does the modification alter, add, or delete any instrumentation? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Hazards/HELB

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-18.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the modification alter or add any structures or equipment to Category I buildings, structures, or equipment? | _____ | _____ | _____ |
| 2. | Does the modification potentially violate established boundaries in Category I and II structures causing communication with adjacent Category I structures. | _____ | _____ | _____ |

If the answers to the above questions are "No," the review is complete; no further evaluation is necessary and completion of the remaining questions is not required. If the response to any of these questions is "Yes," continue to respond to the following questions.

| | | | | |
|---|---|---|---|---|
| 3. | Does this modification alter the energy level (i.e., operating temperature, fluid quality, or pressure) of any fluid system during an operating condition? | _____ | _____ | _____ |
| 4. | Does this modification introduce a new fluid or gas system or relocate an existing fluid or gas system? | _____ | _____ | _____ |
| 5. | Does this modification introduce a new source or modify an existing source of a potential missile generated from a high energy system (e.g., valve stems which are not backseated, valve body to bonnet connection hardware, thermowell, incore detector)? | _____ | _____ | _____ |
| 6. | Does this modification introduce a new piece of rotating equipment? | _____ | _____ | _____ |
| 7. | Does this modification alter the location, orientation, rotational energy, or casing of any rotation equipment? | _____ | _____ | _____ |
| 8. | Does this modification introduce or relocate a safety related component or system? | _____ | _____ | _____ |

**Modification Screening Checklist**

| | | No | Yes | Initials |
|---|---|---|---|---|
| 9. | Does this modification introduce any equipment with anchorage that has not been specifically designed to withstand seismic loads? | _____ | _____ | _____ |
| 10. | Does this modification introduce any seismically anchored component or system which is to be installed within two inches of any seismically anchored component or system? | _____ | _____ | _____ |
| 11. | Does the modification introduce or relocate a safety-related component or system within six inches of nonseismically anchored component or system? | _____ | _____ | _____ |
| 12. | Does this modification introduce or relocate a safety-related component which is potentially in the path of a nonseismically anchored gravity missile (i.e., nonseismic component or system which may fall and impact the safety-related component)? | _____ | _____ | _____ |
| 13. | Does this modification alter, extend, or degrade any barriers, seals, etc., designed to contain or mitigate the environmental effects of a high energy line break. | _____ | _____ | _____ |

**Modification Screening Checklist**

## Fire Protection

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-19.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Fire Barriers | | | |
| | - Are changes proposed (including penetrations) to any fire barriers such as floors, walls, or ceilings enclosing separate fire areas or will any existing penetration be modified/abandoned? | _____ | _____ | _____ |
| | - Are changes proposed (modification, removal) to any integral component of any fire barrier (doors, door frames, and assemblies, dampers, structural steel supports, hatches, steel plates, marinite boards, radiant energy shields, curbs)? | _____ | _____ | _____ |
| | - Will proposed changes modify the technical nature of the surveillance or periodic test procedures for fire barriers and their components (doors, dampers, penetration seals) or fire response? | _____ | _____ | _____ |
| 2. | Combustibles | | | |
| | - Are changes proposed that will modify combustible loading (increase or decrease)? | _____ | _____ | _____ |
| | - Will the configuration of the combustibles be modified? | _____ | _____ | _____ |
| | - Is non-IEEE 383 qualified cable being added. | _____ | _____ | _____ |
| | - Is PVC insulated cable being added. | _____ | _____ | _____ |

**Modification Screening Checklist**

| | | No | Yes | Initials |
|---|---|---|---|---|
| 3. | Detection | | | |
| | - Are changes proposed that will modify any of the plant's fire detection systems, including quantity, type, circuitry, detector location and spacing, and sensitivity? | _____ | _____ | _____ |
| | - Are changes proposed to structures, cable trays, or ventilation ducts that will impact the performance of any detection system? | _____ | _____ | _____ |
| | - Will the proposed changes cause air velocities or directions to change; or introduce heat producing device in an area containing fire or smoke detectors? For example, the proposed change replaces an existing component with one which includes a self-contained forced air cooling system. | _____ | _____ | _____ |
| | - Will proposed changes modify the technical nature of the surveillance or periodic test procedures for the plant's fire detection systems or fire response? | _____ | _____ | _____ |
| 4. | Suppression | | | |
| | - Are changes proposed that will modify any of the plant's fire suppression systems? Suppression systems include automatic sprinklers, water spray systems, foam systems, Halon suppression systems, $CO_2$ suppression systems, water supplies (fire pumps, water mains), fire hose stations (houses, carts, etc.), hydrants and portable extinguishers. | _____ | _____ | _____ |
| | - Are any structures, cable trays, ventilation ducts, piping or other components being installed or modified which could impact the performance of a fixed fire suppression system (both manual and automatic) or impact the ability of the fire brigade to access and utilize manual fire suppression equipment particularly under adverse emergency conditions? | _____ | _____ | _____ |

**Modification Screening Checklist**

| | | No | Yes | Initials |
|---|---|---|---|---|
| | - Will proposed changes modify the technical nature of the surveillance or periodic test procedures for plant's fire suppression systems or fire response? | _____ | _____ | _____ |
| 5 | Ventilation | | | |
| | - Will the proposed change alter the location or type of air supply or discharge registers or other openings intended for air circulation in a room or area containing smoke or fire detectors; or change the velocity or quantity of air being supplied to or discharged from a room or area containing smoke or fire detectors. | _____ | _____ | _____ |
| | - Are any ventilation systems being modified such that fire barriers are penetrated and consideration of additional fire dampers is necessary? | _____ | _____ | _____ |
| 6. | Fire Wrap | | | |
| | - Are changes proposed that will in any way modify the existing configuration and type of cable tray, conduit, cable shaft, panel, equipment, or ventilation duct wrap, including supports. | _____ | _____ | _____ |
| | - Will any existing wrap be abandoned? | _____ | _____ | _____ |
| | - Will proposed changes modify the technical nature of the surveillance or periodic test procedures for fire wrap? | _____ | _____ | _____ |
| 7. | RCP Oil Collection | | | |
| | - Are changes proposed that will modify the performance, capacity, or location of the Reactor Coolant Pump Oil collection system? | _____ | _____ | _____ |

**Modification Screening Checklist**

| | | No | Yes | Initials |
|---|---|---|---|---|
| 8. | Structural Steel | | | |
| | - Are changes proposed that will in any way modify the fire coating to structural steel? | _____ | _____ | _____ |
| 9. | General Plant Arrangement | | | |
| | - Will the proposed change alter the access to or limit the range of manual fire fighting equipment by modifying the general arrangement of an area such as installing floor mounted equipment which could inhibit fire brigade efforts or fire fighting equipment? | _____ | _____ | _____ |
| | - Do the proposed changes renovate an area for a different occupancy such as enclosing or fencing off an area for use as a storage space or establishing a personnel work station or office, etc.? | _____ | _____ | _____ |

**Modification Screening Checklist**

## PRA

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-21.

Modification changes system design or station procedure(s) in one of the following ways:

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Modification involves new "train of components" or addition/deletion of <u>any</u> redundancy. | _____ | _____ | _____ |
| 2. | Modification introduces new component or system interaction, even if protective or isolated, with another train or system. | _____ | _____ | _____ |
| 3. | Modification adds or deletes a major component (i.e., pump, MOV, AOV, manual valve, breaker or any active component - including check valves). | _____ | _____ | _____ |
| 4. | Modification involves a "replacement-in-kind" of a <u>major</u> component (i.e., pump, MOV, fan, breaker). This question relates to the potential for impact on common cause failure modeling in the PRA, so reviewer should focus on the word <u>major</u>. | _____ | _____ | _____ |

The procedure change alters system operation or test in one of the following ways:

| | | | | |
|---|---|---|---|---|
| 1. | A procedure is added to provide for a surveillance or post-maintenance test not previously performed. | _____ | _____ | _____ |

Modification Screening Checklist

| | | No | Yes | Initials |
|---|---|---|---|---|
| 2. | The procedure revision is for the purpose of combining or separating post-maintenance and surveillance testing. | _____ | _____ | _____ |
| 3. | The procedure revision is for the purpose of adding or deleting procedure steps for a revised mode of component/system operation such as deleting/adding cross train alignments or reduced/increased flow operation. | _____ | _____ | _____ |
| 4. | An operator verification is added/deleted from a system status verification procedure, such as alignment checks, instrument checks or an instrument calibration. In this sense and operator verification is the person checking the primary or first person's check as in the double verification of system alignments required by Tech. Specs or QC of a calibration value. | _____ | _____ | _____ |
| 5. | The EOP/AOP is being revised to alter the preference of system uses or the order in which they are encountered in the procedure by the operator. | _____ | _____ | _____ |
| 6. | An EOP/AOP is added or deleted. | _____ | _____ | _____ |
| 7. | The "look" or "form" of any EOP/AOP is dramatically revised. | _____ | _____ | _____ |

(EOP/AOP as used above is intended to man the procedures used by the operators in post-accident response. In this sense they include EOPs or EPs, Functional Restoration Guidelines (FRGs), Abnormal Operating Procedures that support EOP use, Off-Normal Procedures, etc.)

Modification Screening Checklist

## Quality Software

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the applicable discipline verifier for review in accordance with CK-MP3-03-22.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the proposed design include or effect any computer program (i.e., programmable set of instructions) that is processed by a computer (e.g., main frame computer, minicomputer, microprocessor, embedded processor, programmable devices, etc.) that could be Quality Software, Category I Quality Software, Controlled Software, or a Computerized Quality Database? | _____ | _____ | _____ |
| 2. | Will the change involve a plant process computer (i.e., any real-time sensor-based monitoring or control computer system that assists nuclear unit operation. Included are the following: systems traditionally known as "unit process computer;") special purpose computer, minicomputer or microprocessor computer-based instrumentation monitoring and process control systems; and station security systems). | _____ | _____ | _____ |
| 3. | Does the proposed design add, delete, or modify any input or output point for a plant process computer? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Training Procedures

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the ORG for review in accordance with PI-MP3-06.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the design change add or delete components (not parts) or change the physical orientation of plant equipment such that the Operator's response could be impacted by the modification? | _____ | _____ | _____ |
| 2. | Does the design change add or delete components (not parts) that will affect equipment operational practice, surveillance's, maintenance practices or testing practices? | _____ | _____ | _____ |
| 3. | Does the design change alter or modify power supplies, change controls, operational characteristics or indication of components or systems, affect equipment operational procedures, surveillance procedures, maintenance practices or testing practices? | _____ | _____ | _____ |
| 4. | Does the design change add, delete, or modify power supplies, equipment, actuators, or setpoints such that a simulator modification(s) will be required? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Emergency Preparedness Program

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the ORG for review in accordance with PI-MP3-06.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Does the modification alter/add equipment which has the potential to impact the emergency plan, procedures, facilities, equipment, and software (e.g., OFIS)? | _____ | _____ | _____ |

**Modification Screening Checklist**

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## Plant Procedures

Answer each of the questions below yes or no. If any of the answers are yes, submit a copy of the screening form and modification package to the ORG for review in accordance with PI-MP3-06.

| | | No | Yes | Initials |
|---|---|---|---|---|
| 1. | Will the proposed design change test plan require preservice or inservice testing, inspection or base line data generation etc.? (i.e. is it within the ASME class 1, 2 or 3 boundary) | _____ | _____ | _____ |
| 2. | Will the proposed design change require the generation of ASME Section XI repair packages per NGP 7.05? | _____ | _____ | _____ |
| 3. | Will the proposed design change impact the Erosion/Corrosion program? (i.e. flow, pressure, piping geometry, temperature, water chemistry on carbon steel components) | _____ | _____ | _____ |
| 4. | Does this modification add or delete a motor or MOV or alter the control circuit to an existing motor or MOV? | _____ | _____ | _____ |
| 5. | Will the proposed design change impact an MOV? (i.e. flow, temperature, pressure, electrical, thermal overloads, stroke time) | _____ | _____ | _____ |
| 6. | Will the proposed design change impact the Check Valve program? (i.e. modify, replace, repair add, delete, alter flow conditions or change location of a check valve) | _____ | _____ | _____ |
| 7. | Will the proposed design change impact Containment Configuration Testing (Appendix J)? | _____ | _____ | _____ |
| 8. | Will the proposed design change impact the Maintenance Rule Program? (i.e., maintenance requirements, or changes to program scope documents such as an addition or deleting of a MR SSC or change of functions.) | _____ | _____ | _____ |

**Modification Screening Checklist**

| | | No | Yes | Initials |
|---|---|---|---|---|
| 9. | Will the proposed design change impact the Maintenance requirements of any new or existing Plant Equipment? (i.e., equipment accessibility, maintainability, proper design to accommodate predictive maintenance technologies, etc.) | _____ | _____ | _____ |
| 10. | Does the modification affect equipment that is referenced (or needs to be referenced) in any Emergency Operating Procedure? | _____ | _____ | _____ |
| 11. | Does the modification affect equipment that is referenced (or needs to be referenced) in any Operating Procedure? (AOP, OP, ARP, ST, IST, etc.) | _____ | _____ | _____ |
| 12. | Does the modification affect equipment that is referenced (or needs to be referenced) in any Chemistry Procedure? | _____ | _____ | _____ |
| 13. | Does the modification affect equipment that is referenced (or needs to be reference) in any Maintenance Procedure? | _____ | _____ | _____ |
| 14. | Does the modification affec. equipment that is referenced (or needs to be referenced) in ar I&C Procedure? | _____ | _____ | _____ |
| 15. | Does the modification affect equipment that is referenced (or need to be referenced) in any other procedures? | _____ | _____ | _____ |