

Northeast Utilities System

MILLSTONE UNIT 3

MAINTENANCE RULE

UNIT BASIS DOCUMENT

Revision 3

97 rdinator Tech Suppe Manager Date -15-97 2 in Unit Expert Panel Chairman Date

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1.0 Introduction

This document provides the unit specific decisions and results of the Maintenance Rule compliance processes. Implementation was performed in accordance with the Integrated Maintenance Program Manual Program Instructions referenced in the respective sections below. This document provides the initial results of the compliance effort. Section 6.0 documents the unit specific references used in the decisions documented here.

2.0 SSC Scoping

The first step in the Rule compliance effort was to identify the structures, systems, and components (SSCs) which are included within the scope of the Rule as well as document the basis for inclusion or exclusion. The scoping decision process is based on criteria which apply to all plant structures, systems, and components, safety related as well as non-safety related.

The scoping process was completed in two phases in accordance with Program Instruction PI-1.1, "Phase 1 Scoping", and PI-1.2, "Phase 2 Scoping." The Phase 1 scoping effort is focused at the system level and is a preliminary evaluation of each system against the scoping criteria specified in NUMARC 93-01. The Phase 1 scoping results for all systems are documented in the attached table, "Phase 1 Scoping Results." Individual scoping criteria or component decisions made concerning a specific system are documented in the "Remarks" section of the Phase 1 Scoping Results.

Phase 2 scoping included analysis and definition of SSC functional significance as it relates to the Rule scoping criteria. The specific system functions and their relationship to the scoping criteria were evaluated in accordance with PI-1.2 and are documented in the individual System Basis Documents.

Due to the PMMS system boundaries a decision was made during the Phase 2 Scoping process to roll-up systems where a general function would encompass several other PMMS systems, thus reducing the total number of systems requiring monitoring. That process also designated two (2) new systems, the "Normal Power" & "Turbine Generator" Systems.

General categories of instrumentation functions were developed. The function "control signals & functions to other systems were used for process, control, interlock & protection signals generated in one system which impacts other systems. The inputs from the various systems to the Engineered Safeguards Function and the Reactor Protection function of the Solid State Protection System (SSPS) are captured within the SSPS system. The functions for "indications" and "alarms" identify if there are safety related functions and those non-safety related instrument functions which are specifically called out in the EOPs are included within the scope of the rule to provide information to operations personnel.

Containment penetrations and containment isolation valves which are governed by 10 CFR 50 Appendix J are included within the scope of the Maintenance Rule.

Containment penetrations and the overall containment integrity function are monitored within the Appendix J program. Appendix J has its own standards and is subject to its own regulation. It was therefore considered to be redundant to include these monitoring requirements in Maintenance Rule space. Containment Isolation valves which are required to close are monitored by the Maintenance Rule program because the closure function is not monitored in Appendix J. These valves are specifically addressed in the Containment Isolation Valve System Basis Document.

The various devices used to support system components that are not specifically included in the structures monitoring program (i.e.: pipe hangers, snubbers and cable trays) are included within the Maintenance Rule. They are monitored as part of the system they are connected to. A failure of any of these components will be counted as a MRFF of the system if it results in loss of function.

In evaluating the functional relationship the following assumptions or decisions were made with respect to the scoping criteria.

- 2.1 The Control Circuit Isolators (3415) System functions would be included with the appropriate signal function in each system.
- 2.2 All systems that were only In-Scope due to the "Containment Isolation" function are included in the Containment Isolation (3312A) System.
- 2.3 The "Pressure boundary integrity" function is inherent with the function of concern.
- 2.4 The "Heat Tracing" function is inherent within the system and/or train of concern.
- 2.5 With the exception of SSFS, the instrument sensors are included with the system they are attached to, using the P&IDs, regardless of where PMMS placed them.

The following system scoping decisions are documented due to the attention paid to them during the Maintenance Rule Pilot Inspections, (ref. NUREG 1526).

<u>Cathodic Protection</u> - The function of this system is provide long term life cycle protection to minimize corrosion and long term degradation of certain piping systems oning of this system i considered within the scope of normal mi ···· it fails, the result is the detected through failures of systems why rotection served by Cathodic Protection. such Water Water performance criteria which, depending on result in which if ignored will cause the served system to exceed its Fc. a, and require (a)(1) actions under the Maintenance Rule. Additionally, systems such as Service Water are subject to routine inspections which will also detect degradation and lead to repair of Cathodic Protection under normal maintenance if it is determined to be appropriate use of resources at the time.

Lightning Protection - There is no single system for "Lightening Protection." There are miscellaneous electrical components throughout the plant that function to protect equipment from spurious failures due to voltages surges. The effect of such surges on in-scope equipment can be failure of that equipment. Such failures will be monitored and corrected through the Maintenance Rule program.

Site Grounding - There is no single system for "Site Grounding." Each system contains site grounding elements in the form of grounding straps and lugs. This system functions to provide a safe path for electric current. Failures of this function will be manifest in failures of equipment which are in-scope to the Maintenance Rule and be identified as causal factors with corrective actions to resolve.

The Millstone 3 Expert Panel discussed (refer to MP-TS-96-078) how these various support equipment are being handled within the Maintenance Rule context. This discussion was an outgrowth of several questions raised by the NRC at other utilities over the past several months. It was the Panel's consensus that components used for Cathodic & Lightning Protection, as well as Grounding are not in scope to the Maintenance Rule and that the initial scoping efforts were correct in so identifying this equipment. Poor performance of the related components would be identified by the existing Performance Criteria on the systems they support. For example; failures of components used for Lightning Protection and/or Grounding would result in Functional Failures within one or more electrical distribution systems. Similarly, failures of the cathodic protection components would result, if not identified via the erosion/corrosion program. in Functional Failures within the systems they support. The Cathodic Protection components, also have regularly scheduled maintenance in addition to formal monitoring under the Operator rounds. Thus, the existing Performance Criteria for systems which are in-scope, along with existing practices, adequately capture the occurrence of ineffective maintenance on the components used for cathodic protection, lightning protection, and/or grounding.

Rev. 2 of this document also provided justification for not including the following systems in scope:

- Annunciators
- Plant Process Computer
- Emergency Lighting

Scoping reviews conducted in response to NRC concerns identified during a preliminary inspection in November 1996 (ref. ACRs M3-96-1211 and M3-96-1212 reversed these decisions and included the systems in scope.

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3.0 Risk Significant Determination

The NUMARC guideline (NUMARC 93-01) requires that a risk significance determination be made for all SSCs. The methodology used for risk significance determination included the use of PRA calculated values for "cutsets that comprise 90% of the Core Damage Frequency", Risk Reduction Worth (RRW), and Risk Achievement Worth (RAW) and an expert panel Delphi decision process. The risk significance determination process is described in Program Instruction PI-2 and includes the use of PRA, the Expert Panel delphi process, and unit specific Shutdown Risk management procedures. The results of the Risk Significant Determination processes are documented on the attached tables (the forms are from PI-2):

- Form 5, PRA Risk Significant Systems, provides the PRA importance measure data
- Form 5A, Expert Panel Risk Significance Delphi Process. provides the results of the Expert Panel Delphi voting process
- Form 5B, Shutdown Risk Management Evaluation, provides the results of the review of Shutdown Risk Management procedure to evaluated risk in shutdown modes
- Form 6. Risk Significant Systems and Subsystems, provides the final results of the risk significant decision process compiled from Forms 5, 5A, and 5B and references the Expert Panel Meeting minutes for system specific decisions.

4.0 Performance Criteria Development

Program Instruction PI-3, "Performance Criteria", provides guidance for the development of all Performance Criteria. Specific system (function) / train level performance criteria (such as Unavailability, Functional Failures, and degree of concurrent unavailability) are established to monitor and trend performance of risk significant SSCs. The selection of train specific criteria for risk significant system/functions is documented in the individual System Basis Documents. These criteria were developed by either PRA/System Engineers or MES/CBM and considered various risk significance measures as determined by PRA models. The methodology used by PRA in development of unavailability Performance Criteria are described in the following:

- Memo from S. D. Weerakkody to K. Hastings, NE-95-SAB-490, "PRA Input to Unavailability Performance Criteria", 12/5/95
- Memo from J. M. Powers to K. B. Hastings, NE-94-SAB-386, "Performance Criteria for CY System Trains", Nov. 1, 1994. [This was also used for MP3]
- SAB Calculation PRA 94NQA-1093-S3, "PRA Inputs to MP3 System Performance Criteria" Rev. 1
- Memo from E.A. Oswald to R. W. Flanagan, NE-96-SAB-095, "PRA review of the MP3 Unavailability Performance Criteria"

Memo from S. D. Weerakkody to PRA Section, NE-96-SAB-138, "Maintenance Rule Form 5 Update Methodology," 5/22/96

Performance criteria for non-risk Significant SSCs are either system (function) specific or are attached (mapped) to an existing Plant Level criteria. These performance criteria are also documented in the individual System Basis Documents. In all cases the Performance Criteria developed for compliance with the Maintenance Rule are not to be interpreted as being strictly related to the "Operability" of SSCs. Exceeding the Performance Criteria only requires that a cause determination take place.

The selection of unavailability performance criteria for PRA modeled systems/trains was based on a combination of multiple parameters related to trains. These parameters included the historical maintenance unavailability of the system train, the Fussell Vesely importance parameter of the system train as well as the Fussell Vesely importance parameter of the train maintenance unavailability, the risk achievement worth of the train, the potential impact on the overall core damage frequency, and the time required to take the trains out of service to perform surveillance, preventative maintenance work, and a reasonable amount of corrective maintenance. No single parameter was deemed sufficient to address all important issues related to the overall goals of the Maintenance rule.

The FV importance measure of the total train unavailability was used to accommodate the safety significance of the train/component. Therefore, this measure was used to decide on the deviation that can be allowed from the current maintenance unavailability used by PRA without a significant impact on the core damage frequency, CDF. All trains were allowed a maximum deviation that limits the CDF increase to 2%.

The goal was to select Performance Criteria that recognize degradation in maintenance unavailability which significantly impacts Plant risk. It is expected that if these criteria are exceeded, steps will be taken to improve maintenance unavailability. This is an important consideration, for it allows reasonable variations in short-term Plant risk, i.e., variations in the maintenance unavailability, provided they are not severe enough to affect average Plant risk assumptions. The selected Performance Criteria are expected to maintain PRA assumptions.

Once an assumption was made with respect to the above factors, plant-specific maintenance data was reviewed to determine the reasonableness of the resulting criteria. Preliminary, the data was viewed to look at the relative distribution and see if the criteria would pick-up on obvious deviations from the norm. A second review was made by determining the standard deviation for each set of maintenance data to see how the relative magnitude compared to the criteria.

The specific Plant Level Criteria selected for monitoring non-risk significant SSCs are:

< 3 Unplanned Scrams While Critical per rolling 24 month period.

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- < 6 % Unplanned Capability Loss Factor per rolling 24 month period.
- Shutdown Criteria:
 - < 2 Unplanned entries into "Orange" Shutdowr, Risk Condition per rolling 24 month period.
 - < 1 Unplanned entry into "Red" Shutdown Risk Condition per rolling 24 month period.

Other Plant Level performance measures may be affected by SSC failures. These other performance measures will be evaluated on a periodic basis.

Performance criteria development centered on two significant concepts. The first is that maintenance effectiveness can best be monitored in operating modes 1 through 4, by considering each system and function required in those modes. This lead to use of unavailability. FFs, and plant level criteria for individual systems and functions. The second concept developed from addressing the question of how best to monitor maintenance effectiveness in shutdown modes 5 and 6.

With respect to developing & establishing performance criteria the following assumptions or decisions were made with respect to performance criteria:

- 4.1 The instrument sensor FFs are charged to the appropriate process control, or protection System. The boundary for high pressure systems is generally the first isolation valve from the process.
- 4.2 The Plant Level Performance Criteria apply to ALL systems/functions.
- 4.3 Functional Failures will be counted in all modes regardless of whether the function is required in that mode.

5.0 Performance Evaluation

This document will not maintain the current status of the (a)(1) systems and plant level performance criteria. This section will be updated at the time revisions are made. The current status should be obtained from the Unit Coordinator.

Initial performance evaluation and determination of whether a system was a "good performer", rule category (a)(2), or a "poor performer", rule category (a)(1), was made in accordance with Integrated Maintenance Program Manual (IMP) Program Instruction PI-4, "Performance Evaluation." and PI-5, "Maintenance Rule Functional Failures." Results of these determinations for all in-scope systems is provided in the individual System Basis Documents (SBDs). The following systems were determined to be in need of improvement by the Expert Panel and an ACR was initiated for each:

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Local ID	PMMS ID	System	ACR
3301	RCS	Reactor Coolant	96-08895
3312A	CNT Containment Isolation (Target Rock valves)		96-08893
3314A	RPV	Auxiliary Building Ventilation	96-05504
3314F	ACC	Control Building Ventilation	96-05503
3316A	MSS	Main Steam (MSIVs)	96-05498
3327	TRS	Traveling Screens	96-05497
3344B	MCC	Vital MCC's	96-05278
3404	RMS	Radiation Monitors	96-07772

Since the initial performance assessment, two additional systems were added to the (a)(1) list.

Local ID	PMMS ID	System	ACR
3304	CVC	Chemical & Volume Control	M3-96-0156
3326	SWP	Service Water	M3-96-0675

As of December 31, 1996. Millstone 3 had exceeded two of three plant level criteria.

Criteria: Less then three (3) reactor scrams within the preceding 24 months

The unit has experienced no reactor trips within the last 24 months.

Criteria: > 6 % Unplanned Capability Loss Factor per rolling 24 month period.

The units UCLF as of December 31, 1996 was 40.0 %. ACR M3-97-0792 was issued to document the fact that the UCLF criterion had been exceeded. The major contributors to this were MSIVs. RCS, and the current shutdown. No additional systems were added to (a)(1) as the causes are already addressed in current (a)(1) Action Plans.

Criteria: Shutdown Criteria

 < 2 Unplanned entries into "Orange" Shutdown Risk Condition per rolling 24 month period. .

< 1 Unplanned entry into "Red" Shutdown Risk Condition per rolling 24 month period.

As of 12/31/97, the unit has experienced 5 unplanned entries into either "Orange" or "Red" shutdown Risk Conditions within the past 24 months. ACR M3-96-0793 was issued to document this condition. The evaluation is not complete at this time.

Results of these determinations along with additional goals and monitoring are also provided in the individual System Basis Documents.

6.0 References

- 6.1 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants", Dated 10 July 1991
- 6.2 NUMARC 93-01, "Industry Guidelines for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants", Dated May 1993
- 6.3 Regulatory Guide 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants", Dated June 1993
- 6.4 Memo from S. D. Weerakkody to K. Hastings, NE-95-SAB-490, "PRA Input to Unavailability Performance Criteria", 12/5/95
- 6.5 Memo from J. M. Powers to K. B. Hastings, NE-94-SAB-386, "Performance Criteria for CY System Trains", Nov. 1, 1994. [This was also used for MP3]
- 6.6 SAB Calculation PRA 94NQA-1093-S3, "PRA Inputs to MP3 System Performance Criteria" Rev. 1
- 6.7 Memo from R. W. Flanagan to MP3 Expert Panel, MP3-TS-96-187, "Plant Level Performance", 4/15/96
- 6.8 Memo from R. W. Flanagan to MP3 Expert Panel, MP3-TS-96-078, "Expert Panel Meeting Minutes for February 14, 1996", 2/26/96
- 6.8 Memo from R. W. Flanagan to MP3 Expert Panel, MP3-TS-96-083, "Emergency Lighting System", 2/26/96
- 6.9 Memo from E.A. Oswald to R.W. Flanagan, NE-96-SAB-095, "PRA review of the MP3 Unavailability Performance Criteria", 4/10/1995
- 6.10 Memo from S. D. Weerakkody to PRA Section, NE-96-SAB-138, "Maintenance Rule Form 5 Update Methodology", 5/22/96

Unit Ba	asis Document N	Aillstone Unit 3 Rev. 3
<u>Rev. #</u>	Change Summary	Date
1	Incorporate Shutdown Risk Plant Level Performance Criteria; update and incorporate applicable reference; Editorial and typographical corrections.	e 4/24/96
2	Incorporate the PRA Maintenance Rule update information resulting from model revisions.	6/24/96
3	Incorporated scoping revisions from resulting from NRC inspection and ACRs M3-96-1211 & M3-96-1212. (Section 2.0)	2/14/97
	Incorporated revised risk importance measure data for risk significant decision process. No changes to the systems identified as risk significant were made. (Section 3.0)	nce

Added two systems to the list of (a)(1) systems and updated the status of performance against Plant Level Criteria. (Section 4.0)

EL M.5 PRA RISK SIGNIFICANT SYSTEMS

Plant: MP3

FRONT-LINE SYSTEM	CDF (Y/N)	RAW (Y/N)	RRW (Y/N)	RISK (Y/N)	PLANT SYSTEMS	SUPPORT SYSTEMS
120 Volt AC	N	Y 15.29	N 1.000	Y	Vital 120 VAC Vital 120 VAC Inverters	Vital 480 Volt Vital MCC's
125 Volt DC	Y	Y 6.50	Y 1.010	Y	DC 125 VDC - Control	
Accumulators	Y	Y 12.56	Y 1.014	Y	Accumulators	
Auxiliary Feedwater Motor Driven Train A&B Turbine Driven Train	Y	Y 11.73 7.80	Y 1.026 1.055	Y	Auxiliary Feedwater Cond: Storage & Makeup	Vital 480 Volt Vital MCC's DC 125 VDC - Control ESAS (ESF/EGLS) Main Steam
CHG Pump Cooling	N	Y 2.51	N 1.000	Y	CHG Pump Cooling	Vital 480 Volt Vital MCC's ESAS (ESF/EGLS)
EGLS	N 4.00E-2	Y 1.0400	Y 4.30E01	Y	EGLS	Vital 120 VAC Vital 120 VAC Inverters
Emergency Diesel Generators	Y	Y 4.49	Y 1.028	Y	EDG - Engine EDG - Generator	EDG - Fuel Oil EDG - Lube Oil EDG - Starting Air Service Water
ESF Actuation	Y	¥ 2.27	N 1.004	Y	ESAS	Vital 120 VAC Vital 120 VAC Inverters

E M.5 PRA RISK SIGNIFICANT SYSTEMS

Plant: MP3

FRONT-LINE SYSTEM	CDF (Y/N)	RAW (Y/N)	RRW (Y/N)	RISK (Y/N)	PLANT SYSTEMS	SUPPORT SYSTEMS
HPSI & Charging	Y 8.00E-2	Y 1.0800	Y 2.12E02	Y	RWST HPSI Charging Pump	Vital 480 Volt Vital MCC's ESAS (ESF/EGLS)
(HPSI only)	N	Y 1.25	N 1.000			
(CVCS only)	Y	Y 2.00	Y 1.031			
HPS ¹ ump Cooling	Y	Y 1.45	Y 1.006	Y	SI Pump Cooling	Vital 480 Volt Vital MCC's ESAS (ESF/EGLS)
MSIV	Y	Y 1.0700	Y 2.20E01	Y	Main Steam	DC 125 VDC - Control ESAS (ESF/EGLS)
Offsite Power	N 2.00E-2	Y 1.0200	N 1.00E02	Y	NSST RSST Vital 4160 Volt	EDG - Engine EDG - Generator
PORVs	Y	¥ 2.23	Y 1.042	Y	Reactor Coolant	Vital 480 V C Vital S DC 125 VDC - Control
RSS	Y	Y 42.60	Y 1.232	Y	Recirculation Spray	HPSI Charging Pumps Service Water

EL M.5 PRA RISK SIGNIFICANT SYSTEMS

Plant: MP3

FRONT-LINE SYSTEM	CDF (Y/N)	RAW (Y/N)	RRW (Y/N)	RISK (Y/N)	PLANT SYSTEMS	SUPPORT SYSTEMS
						Vital 480 Volt Vital MCC's DC 125 VDC - Control ESAS (ESF/EGLS)
RWST	Y	Y 790.38	Y 1.005	Y	RWST	
Service Water	Y	Y 2.48	Y 1.175	Y .	Service Water	Vital 480 Volt Vital MCC's DC 125 VDC - Control ESAS (ESF/EGLS)
Solid State Protection System	Y	Y 6607	Y 1.134	Y	RPS	Scram Breaker opening portion of CRD.
LPSI *	N 2.00E-4	N 1.0002	N 1.00E00	N		
Main Feedwater	Y	N 1.31	Y 1.014	Y		
Quench Spray*	N	N 1.65	N 1.000	N		
RSS (CTMT Recirc)	Y	Y 42.60	Y 1.232	Y		

*NOTE: Not Risk Significant using PRA measures in accordance with Program Instruction PI-2. Shown for comparison Purposes only

Form 5 Update, 7/23/96

The following table represents the data transmitted from PRA via memo NE-96-SAB-0178 representing revised risk importance measures. The data in Form 5 above was undated to include the date from this table where appropriate. The data and conclusions from referenced memo were reviewed and approved by the Expert Panel on July 23, 1996. No changes to the risk significant lists were made. However, Expert Panel "open items" were identified to evaluate assumptions in the PRA with respect to HVAC systems, MFW injection function, RCS SRVs. and PORT unavailability requirements.

System/Train Description	Top 90% CMF	EV	RRW	RAW
Accumulator Train A	Y	0.014	1.014	12.56
Accumulator Train B	Y	0.014	1.014	12.560
Accumulator Train C	Y	0.014	1.014	12.56%
Accumulator Train D	Y	0.014	1.014	12.5 80
Auxiliary Feedwater MD Pump Train A	Y	0.026	1.026	11.73
Auxiliary Feedwater MD Pump Train B	Y	0.026	1.026	11.73
Auxiliary Feedwater TD Pump Train	Y	0.052	1.055	7.80
AFW and Mech Room HVAC Train A	Y	0.003	1.003	11.62
AFW and Mech Room HVAC Train B	Y	0.003	1.003	11.623
Charging Train A	Y	0.030	1.031	2.00
Charging Train B	Y	0.030	1.031	1.99
Charging Lube Oil Cooling Train A	N	0.000	1.000	2.510
Charging Lube Oil Cooling Train B	N	0.000	1.000	2.51
Charging and CCW Area HVAC Train A	N	0.000	1.000	9.02(1.3)
Charging and CCW Area HVAC Train B	N	0.000	1.000	9.02(1.3)
Control Building Chilled Water Train A	Y	0.062	1.066	32.50
Control Building Chilled Water Train B	Y	0.061	1.065	32.59(3)
DC Power Train A	Y	0.010	1 0 1 0	6 50
DC Power Train B	Y	0.010	1.010	6.50
Diesel Generator Train A	Y	0.028	1.028	4.49

MP3 System/Train Maintenance Rule Importance

System/Train Description	Top 90%	EV	RRW	RAW
Diesel Generator Train B	V	0.026	1 026	2 0 6 40
SBO Diesel Generator Train	×	0.020	1 000	3.90
Diesel Generator Enclosure HVAC Train A	~	0.000	1.000	1.44
Diesel Generator Enclosure HVAC Train R	~	0.007	1.007	1.41
	1	0.007	1.007	1.41
DWST	Y	0.002	1.002	799.32
ESFAS Train A	Y	0.004	1.004	2 27
ESFAS Train B	Y	0.004	1.004	2.27
High Pressure Safety Injection Train A	N	0.000	1 000	1 250
High Pressure Safety Injection Train B	N	0.000	1.000	1.20
SI Pump Lube Oil Cooling Train A	IN V	0.000	1.000	1.250
SI Pump Lube Oil Cooling Train A	Ť	0.006	1.006	1.45
St Pump cube on Cooling Train B	Y	0.006	1.006	1.45
Intake Structure (SW) HVAC Train A	Y	0.040	1.041	34.130
Intake Structure (SW) HVAC Train B	Y	0.040	1.042	34.23
Main Feedwater Train A/B	Y	0.013	1.014	1.31(6)
Main Steam System Train A	Y	0.010	1 010	2 700
Main Steam System Train B	Ý	0.010	1.010	2.70%
Main Steam system Train C	, v	0.010	1.010	2.75
· · · · · · · · · · · · · · · · · · ·		0.010	1.010	2.79.4
Main Steam System Train D	Y	0.010	1 010	2 79(9)
Main Steam System - Steam Dump to	Y	0.025	1.026	2 300
Condenser				2.00
MCC/RCA Room HVAC Train A	Y	0.004	1 004	7 29
MCC/RCA Room HVAC Train B	Ý	0.004	1 004	7 20
		0.004	1.004	1.20
PORV Train A	Y	0.040	1.042	2.23
PORV Train B	Y	0.040	1.042	2.23
Quench Spray Train A	N	0.000	1 000	1.650
Quench Spray Train B	N	0.000	1.000	1.05
	IN IN	0.000	1.000	1.05
RCS Safety Relief Valves (SV8010A, B, C)	Y	0.032	1.033	1.13(8)

System/Train Description	Top 90% CMF	EV	RRW	RAW
RPCCW Train A	N	0.000	1.000	1.11()
RPCCW Train B	Ν	0.000	1.000	1.110
Reactor Protection System	Y	0.118	1.134	6606.98
Residual Heat Removal Train A	N	0.000	1.000	1.00
Residual Heat Removal Train B	N	0.000	1.000	1.00(1)
RHR, QSS and SI Area HVAC Train A (ACUS1A)	Ν	0.000	1.000	1.02
RHR, QSS and SI Area HVAC Train B (ACUS1B)	Ν	0.000	1.000	1.02
Recirculation Spray Train A	Y	0.189	1.232	42.60
Recirculation Spray Train B	Y	0.188	1.231	42.11
RSS HVAC Train A	Y	0.006	1.006	1.35
RSS HVAC Train B	Y	0.006	1.006	1.350
RWST	Y	0.010	1.010	790.38
Service Water Pump Train A	Y	0.148	1.174	2.48
Service Water Pump Train B	Y	0.149	1.175	2.47
Service Water Pump Train C	Y	0.146	1.171	2.13
Service Water Pump Train D	Y	0.145	1.169	1.37
SWGR HVAC Train A	Y	0.001	1.001	1,43(3)
SWGR HVAC Train B	Y	0.001	1.001	1.430
120v Vital AC Power Train A (VIAC-1)	N	0.000	1.000	15.29
120v Vital AC Power Train B (VIAC-2)	N	0.000	1.000	15.29"
120v Vital AC Power Train C (VIAC-3)	N	0.000	1.000	15.29
120v Vital AC Power Train D (VIAC-4)	N	0.000	1.000	15.29

MP3 System/Train Maintenance Rule Importance

- Computed by requantification of the whole model rather than using the cutset method. Relatively high RRW/RAW values resulting from conservative accumulator success criteria.
- 3) HVAC system train value exceeds the NEI criteria; however, the PRA Section recommends that the Expert Panel determine the actual risk significance since the common cause factor dominates the result. These systems were included in the PRA model as required support systems, since room heat-up calculations were not available. In addition, operator action was assumed as a screening value, and more detailed input could be provided by the Panel.
- 4) Based on ACR #1892 "Limited capacity of the SBO Diesel Battery," the RRW and RAW values for the DG 'A' & 'B' as well as the SBO DG would be different; however, they would all be considered risk significant. Reference: Memo to M. H. Brothers From S. D. Weerakkody, NE-96-SAB-150, "PRA Review of ACR #1892: Limited Capacity of Station Blackout Diesel Battery," 5/31/96.
- 5) Although the table does not show HPSI trains 'A' and 'B' as risk significant, the associated support system SI pump lube oil cooling train is risk significant under the category of 90% CMF and RRW. The 'zero' value for HPSI's FV is a result of truncation. The FV of the dedicated lube oil cooling trains (.006) must be representative of the FV of the HPSI trains as well. Therefore, the HPSI trains should also be considered risk significant.
- 6) MFW system risk significance is based on the need of MFW to remove secondary side heat following the initial phase of an ATWS event.
- 7) Steam dump to condenser models' failure of any one of nine steam dump valves to reclose following a transient CSLBO.
- c, Relatively high RRW/RAW values based on conservative overpressure relief success criteria following an ATWS. Results in Function 1.03 of Reactor Coolant System being considered risk significant.
- 9) A main steam train consists of the MSIV, CTV 27A(B, C, D) atmospheric relief valve, PV 20A(B, C, D) and the SG safety relief valves SRVs 22A(B, C, D) and 23A(B, C, D).

Plant: MP3

SYSTEM	SUBSYSTEM	RISK FACTOR	RANKING	RISK (Y/N)
ESF - Injection	RWST & Recirculation	2.47	1	Y
ESF - Injection	SI Pp Cooling	2.45	2	Y
ESF - Injection	LPSI	2.43	3	Y
ESF - Injection	Recirculation Spray	2.42	4	Y
Emergency Diesel	Auxiliaries	2.42	5	Y
ESAS	Westinghouse 7300 Racks	2.42	6	Y
Electrical - AC	Vital 4160 volt	2.41	7	Y
ESF - Quench Spray	Quench Spray	2.40	8	Y
Electrical - AC	Vital 480 volt	2.39	9	Y
leactor Coolant	Vessel	2.39	10	Y
CVCS	Charging Pp	2.38	11	Y
ESF - Injection	Residual Heat Removal	2.36	12	Y
Electrical - DC	DC 125 VDC - Control	2.35	13	Y
Electrical - AC	Vital 120 VAC Inverters	2.34	14	Y
Electrical - AC	Vital MCC's	2.32	15	Y
Misc. Inst & Cont	Main Control Boards	2.31	16	Y
Reactor Protection	Solid State Protection	2.30	17	Y
Reactor Coolant	Reactor Coolant	2.29	18	Y
Emergency Diesel	Emergency Diesel	2.28	19	Y
Emergency Diesel	Generator	2.28	20	Y
Emergency Diesel	Fuel Oil	2.28	21	Y
CVCS	Charging Pp Cooling	2.27	22	Y
Feedwater	Feed Pump	2.27	23	Y
electrical - DC	VDC: 12 - 24	2.25	24	Y

ant: MP3

SYSTEM	SUBSYSTEM	RISK FACTOR	RANKING	RISK (Y/N)
Emergency Diesel	Engine	2.25	2.5	Y
Electrical - AC	Vital 120 VAC	2.25	26	Y
Main Steam	Steam Generator	2.24	27	Y
ESAS	EGLS	2.24	28	Y
ESF - Injection	HPSI	2.24	29	Y
Emergency Diesel	Starting Air	2.24	30	Y
Emergency Diesel	Lube Oil	2.24	31	Y
Feedwater	Feedwater	2.23	32	Y
Main Steam	Main Steam	2.21	33	Y
Auxiliary Feedwater	Auxiliary Feedwater	2.17	34	Y
Electrical - Gen.	Main Transformer	2.17	35	Y
Electrical - Gen.	Normal Transformer	2.17	36	Y
Misc. Inst & Cont	Foxboro Spec 200 Rack	2.15	37	N
Feedwater	S/G Level Control	2.14	38	N
Service Water	Service Water	2.13	39	N
Emergency Diesel	EDG Rm. Ventilation	2.12	40	N
Electrical - DC	VDC: 48	2.11	41	N
CVCS	Chem & Volume Control	2.11	. 42	N
Structures	Containment Structure	2.11	43	N
Feedwater	Pump & Drive Lube	2.09	44	N
Reactor Coolant	Reactor Vessel Level	2.09	45	N
Electrical - Gen.	Reserve Transformer	2.08	46	N
ESF Ventilation	ESF Bldg - Purge	2.08	47	N
eactor Coolant	Incore Thermocouples	2.06	48	N
Misc. Inst & Cont	Control Circuit Isolators	2.05	49	N

lant: MP3

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SYSTEM	SUBSYSTEM	RISK FACTOR	RANKING	RISK (Y/N)
Electrical - AC	Lighting - Emergency	2.04	50	N
Emergency Diesel	Station Blackout	2.04	51	N
Main Steam	Steam Dump Control	2.03	52	N
Misc. Inst & Cont	Aux. Shutdown Panel	2.03	53	14
CVCS	Letdown	2.03	54	N
Control Rod Drive	Control Rod Drive	2.03	55	N
Structures	Diesel Eng. Bldg	2.03	56	N
Structures	ESF Bldg	2.02	57	N
CVCS	Boric Acid	2.01	58	N
Misc. Inst & Cont	Annunciators	01	59	N
Misc. Inst & Cont	Plant Computer	2.00	60	N
Main Steam	S/G Blowdown	2.00	61	N
Electro-Hyd. Control	EHC	2.00	62	N
Main Steam	Reheater Vent & Drain	1.98	63	N
Main Steam	Condenser Air Removal	1.98	64	N
Electrical - Gen.	High Voltage - 345 KV	1.97	65	N
RPCCW	RPCCW	1.97	66	N
Reactor Coolant	Reactor Coolant Pp	1.97	67	N
Screen Wash	Traveling Screens	1.96	68	N
Compressed Gases	Instrument Air	1.95	69	N
Structures	Auxiliary Building	1.95	70	N
Nuclear Instruments	Power Range	1.94	71	N
CVCS	Boron Thermal Regen	1.94	72	N
Containment	Containment Isolation	1.91	73	N
Nuclear Instruments	Intermediate Range	1.90	74	N

ant: MP3

SYSTEM	SUBSYSTEM	RISK	RANKING	RISK
		TACTOR		(Y/N)
Nuclear Instruments	Source Range	1.89	75	N
Control Rod Drive	Digital RPI	1.89	76	N
Rx Plant Ventilation	Aux Bldg Vent	1.88	77	N
Spent Fuel Cooling	Spent Fuel Cooling	1.87	78	N
Containment	DBA H2 Recombiner	1.87	79	N
Control Rod Drive	M/G Sets	1.86	80	N
Nuclear Instruments	Excore - Gammametrics	1.86	81	N
Control Rod Drive	Electrical 120-277 VAC	1.86	82	N
Control Bldg Vent	Control Bldg A/C	1.86	83	N
Nuclear Instruments	Incore NI's	1.85	84	N
Kx Plant Ventilation	SLCRS Filtration	1.84	85	N
Electrical - AC	Non-Vital 6900 volt	1.84	86	N
Turbine Generator	Turbine	1.83	87	N
Rx Plant Chill Water	Rx Plant Chill Water	1.83	88	N
Main Steam	Turbine Plant Drains	1.82	89	N
Condensate	Condensate	1.82	90	N
Containment Vent	Purge	1.82	91	N
Chemical Addition	Steam Generator	1.82	92	N
Radiation Monitors	Radiation Monitors	1.82	93	N
Control Bldg Vent	Control Bldg Chill Water	1.81	94	N
Fire Protection	Halon	1.80	95	N
Containment	Support	1.80	96	N
Structures	H2 Recomb Bldg	1.80	97	N
°ontainment Vent	CRDM Cooling	1.80	98	N
Turbine Generator	Stator Cooling	1.79	99	N

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SYSTEM	SUBSYSTEM	RISK FACTOR	RANKING	RISK (Y/N)
Containment Vent	Air Recirculation	1.79	100	N
Electrical - AC	Non-Vital 4160 volt	1.79	101	Ň
Fire Protection	CO2	1.79	102	N
Post Accident Sample	Containment Sample	1.79	103	N
Condensate	Storage & Make-up	1.79	104	N
Fire Protection	Fire Protection	1.79	105	N
Reactor Coolant	Sampling	1.78	106	N
Post Accident Sample	Post Accident Sample	1.78	107	N
Containment Vent	Filtration	1.78	108	N
Structures	Ctmt Exh Bldg	1.78	109	N
Containment	Atmosphere Monitor	1.78	110	N
Fire Protection	Alarm & Detection	1.77	111	N
Containment Vent	Leak Monitoring	1.77	112	N
BOP HVAC	MSV Bldg Ventilation	1.77	113	N
Fire Protection	Water	1.76	114	N
Primary Water	Primary Water	1.76	115	N
Rx Plant Ventilation	Fuel Bldg	1.76	116	N
Circ Water	Circ Water	1.75	117	N
Gland Seal Wtr./Exh.	Gland Seal Wtr. & Exh.	1.73	118	N
Containment Vent	Vacuum	1.73	119	N
N Shield Tk Cooling	N Shield Tk Cooling	1.72	120	N
Radioactive Waste	Rx Plant Gas Drains	1.72	121	N
Intake Struct. Vent	Supply & Exhaust	1.71	122	N
Structures	Fuel Bldg	1.70	123	N
Radioactive Waste	Rx Plant Gas	1.70	124	N

int: MP3

SYSTEM	SUBSYSTEM	RISK FACTOR	RANKING	RISK (Y/N)
Service Water	Chlorine	1.70	125	N
Radioactive Waste	Liquid & AER Drains	1.69	126	N
Radioactive Waste	Liquid	1.68	127	N
Radioactive Waste	Boron Recovery	1.66	128	N
Structures	Waste Disposal Bldg	1.66	129	N
BOP HVAC	Turbine Bldg Ventilation	1.65	130	N
Rx Fuel Handling	Rx Fuel Handling	1.65	131	N
Radioactive Waste	Gaseous	1.65	132	N
Radioactive Waste	Glycol Heating	1.65	133	N
Px Plant Ventilation	Waste Disposal	1.64	134	N
Misc. Inst & Cont	Seismic Monitor	1.64	135	N
Misc. Domestic Serv	Hot Water Pre-heat	1.61	136	N
Auxiliary Boiler	Auxiliary Steam	1.60	137	N

*NOTE: Systems below the heavy line (Ranking > 36) were not Risk Significant within the Delphi Process in accordance with Program Instruction PI-2. Shown for comparison purposes only

FORM 5B - SHUTDOWN RISK MANAGEMENT EVALUATION

Plant: MP3

SAFETY FUNCTION	EQUIPMENT REQUIREMENTS	PLANT SYSTEMS	SUPPORT SYSTEMS			
RCS Decay Heat Removal	RHR	Residual Heat Removal	RBCCW, SW, Vital 480 volt			
RCS Decay Heat Removal	cay Heat Removal S/G (2/4) Steam Generator					
RCS Decay Heat Removal	Refuel Cavity (>23')					
SFC Decay Heat Removal	SFC	RPCCW, SW, Vital 480 volt				
SFC Decay Heat Removal	SF Pool (>23')	Spent Fuel Cooling				
Inventory	CHS (A/C) (B/C)	Charging Pump	Charging Pp Cooling RPCCW, SW, Vital 480 volt			
Inventory	iventory SIH HPSI					
Inventory	RHR	Residual Heat Removal	RPCCW, SW, Vital 480 volt			
Inventory	RWST	RWST				

FORM 5B - SHUTDO I RISK MANAGEMENT EVALUATION

Plant: MP3

Power	EDG	Emergency Diesel Emergency Generator	Fuel Oil Lube Oil Starting Air
Power	RSST	Reserve Transforme:	345 KV
Power	NSST/Main	Normal Transformer Main Transformer	345 KV 24 KV
Power	SBO EDG	Station Blackout	
Reactivity	Boration	Boric Acid	
Reactivity	SDM Monitor	Excore-Gammametrics	
Containment	Isolation	Containment Structure Containment Isolation	
Containment	RCS + SG	RCS Steam Generator	Auxiliary Feedwater Steam Dump Control

FORM 6 RISK SIGNIFICANT SYSTEMS AND SUB-SYSTEMS

lant: MP3

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SYSTEM	SUBSYSTEM	PRA Risk (Y/N)	E/P Risk (Y/N)	E/P Mins. (memo #)	RISK SIGNIFICANT (Y/N)
Auxiliary Feedwater	Auxiliary Feedwater	Y	N		Y
Condensate	Storage & Makeup	Y	N	No. Control of the second s	Y
Containment	Containment Isolation	Y**	N		Y
Control Rod Drive	Control Rod Drive	N	N	MES-95-305 MES-95-315	N
Control Rod Drive	CRD - Elect.120-277 VAC	Ν	N	MES-95-305 MES-95-315	N
Control Rod Drive	CRD - M/G Sets	N	N	MES-95-305 MES-95-315	N
CVCS	Boric Acid Y** N MES-94-256 MES-94-300 MES-94-428				N
UVCS	Charging Pump	Y, Y**	Y	and and the second second and the second	Y
CVCS	CHG Pump Cooling	Y	Y		Y
Electrical - AC	Vital 120 VAC	Y	Y		Y
Electrical - AC	Vital 4160 Volt	Y	Y		Y
Electrical - AC	Vital 480 Volt	Y*,Y**	Y	and and a fille of an and an an an and a single special to ware	Y
Electrical - AC	Vital MCC's	Y*	Y		Y
Electrical - AC	Vital 120 VAC - Inverters	Y	Y		Y
Electrical - DC	DC 125 VDC - Control	Y	Y		Y
Electrical - Gen	High Volt - 345 KV	Y**	N	MES-94-256 MES-94-300 NE-94-SAB-293	Y
Electrical - Gen	Main	Y**	N		Y
Electrical - Gen	NSST	Y, Y**	N	A CONTRACTOR AND CONTRACTOR AND A CONTRACTOR AND A	Y
lectrical - Gen	RSST	Y, Y**	N	an a	Y

And the local distance of the second state of	The second se				
Emergency Diesel	Auxiliaries	N	Y	MES-94-256 MES-94-300	N
hergency Diesel	Engine	Y, Y**	Y		Y
Emergency Diesel	Fuel Oil	Y*	Y		Y
Emergency Diesel	Generator	Y, Y**	Y		Y
Emergency Diesel	Lube Oil	Y*	N		Y
Emergency Diesel	Starting Air	Y*	N		Y
Emergency Diesel	Station Blackout	Y**	N		Y
Emergency Diesel	EDG Rm Ventilation	Y*	N		Y
ESAS	EGLS	Y	Y		Y
ESAS	Westinghouse 7300 Racks	Y	Y		Y
ESF - Injection	Accumulators	Y	N	MES-94-256 MES-94-300 NE-94-SAB-293	Y
ESF - Injection	HPSI	Y, Y**	N		Y
ESF - Injection	LPSI	N	Y		Y
F - Injection	Recirculation Spray	Y	Y		Y
ESF - Injection	RHR	Y**	Y		Y
ESF - Injection	RWST	Y, Y**	Y		Y
ESF - Injection	SI Pump Cooling	Y, Y**	Y		Y
ESF - Quench Spray	Quench Spray	N	Y		Y
Feedwater	Feed Pump	Y	Y		Y
Feedwater	Feedwater	Y	Y		Y
Main Steam	Main Steam	Y	N		Y
Main Steam	Steam Generator	Y, Y**	N		Y
Misc. Inst & Cont	Main Control Boards	N	Y	MES-94-256 MES-94-300	N
Reactor Coolant	Reactor Coolant	Y**	Y		Y
Reactor Coolant	Vessel	N	Y	MES-94-256 MES-94-300	N
Reactor Protection	SSPS	Y	Y		Y
YCCW	RPCCW	N	Ν	MES-94-428 NE-94-SAB-407	Y

x * x *

Service Water	Service Water	Y, Y**	N		Y
Nuclear Instruments	Excore - Gammametrics	Y**	N	MES-94-256 MES-94-300	N
spent Fuel Cooling	Spent Fuel Cooling	Y**	N	MES-95-310 MES-95-321	N
Structures	Containment	Y**	N	MES-94-256 MES-94-300 MES-94-428	Y

Y* indicates that the system is an assumed support system within the PRA for a system that PRA has identified as "Risk Significant".

Y** indicates that the system was identified from OP 3260A (Conduct of Outages) Form 3260-3 & 4

Millstone 3 Maintenance Rule: Phase 1 data

17-Feb-97

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Auxiliary Boiler: Aux Boiler & Controls	ABX	3331A	No	No	No	No	No	No	No	
Auxiliary Boiler: Auxiliary Condensate	ACN	3331B	No	No	No	No	No	No	No	
Auxiliary Boiler: Auxiliary Steam	ASS	3331A	Yes	No	No	Yes	No	No	Yes	The Cat. 1 components are associated with HELB isolation function to isolate the Aux. Steam supply to the Aux. Bldg.
Auxiliary Boiler: Blowdown	ABB	3331C	No	No	No	No	No	No	No	
Auxiliary Boiler: Combustion Air	ABA	3331C	No	No	No	No	No	No	No	
Auxiliary Boiler: Feed	ABF	3331B	No	No	No	No	No	No	No	
Auxiliary Boiler: Fuel	ABO	3331E	No	No	No	No	No	No	No	
Auxiliary Boiler: Steam	ABS	3331A	No	No	No	Yes	No	No	Yes	HEI B concerns
Auxiliary Feedwater: Auxiliary Feedwater	AFW	3322	Yes	Yes	Yes	No	No	Vac	Vac	TILLE CONCENTS
SOP HVAC: Aux Boiler Ventilation	ABV	3315E	No	No	No	No	No	No	No	
SOP HVAC: MSV Bldg Ventilation	MSV	3315B	Yes	Yes	Yes	No	No	No	Vac	
3OP HVAC: Tech Support Center	TBV	3315D	No	No	No	No	No	No	No	
OP HVAC: Turbine Bldg Ventilation	TBV	3315A	No	No	No	No	No	No	No	
OP HVAC: Warehouse 5	TBV	3315C	No	No	No	No	No	No	No	
hemical Addition: Condensate	CNC	3339A	No	No	No	No	No	No	No	
hemical Addition: Steam Generator	SGF	3339B	No	No	No	No	No	No	No t	NOTE: The Cat I components contained within this system are associated with the Containment solation function only. These components will be considered a portion of the Containment Isolation
rc Water: Cathodic Protection	CCP	3325C	No	No I	No	No	No I	No	No	ystem,

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Circ Water Circ Water	CIR	3325A	No	No	Yes	No	Yes	No	Yes	NOTE: The Cat. 1 ID is an electrical isolation relay/device which is monitored with the safety related system/function it protects.
										EOP for SGTR Recovery
Circ Water: Waterbox Prime	CWP	3325B	No	No	No	No	Yes	No	Yes	a System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96- 362. b System monitored under Circulating Water System (3325A).
Communications: Gaitronics	CMM	3348A	No	No	Yes	No	No	No	Yes	
Communications: Paging & Evac Alarm	CMM	3348B	No	No	Yes	No	No	No	Yes	
Communications: Radio	CMM	3348CR	No	No	Yes	No	No	No	Ves	
Communications: Sound Powered	CMM	3348C	No	No	Yes	No	No	No	Yes	
Compressed Gases: Containment Inst. Air	CIA	33328	No	No	Yes	No	Yes	No	Yes	 a. The Containment Instrument Air Compressors were removed. System is mentioned in various EOPs but provides no significant accident mitigation. Refer to FSAR a.3.1 b. System added to scope for "could cause" Refer to Expert Panel meeting minutes MP-TS-96- 362. c. System monitored under Instrument Air (3332A).
Compressed Gases: Hydrogen	GH2	3334	No	No	No	No	No	No	No	
Compressed Gases: Instrument Air	AIC	3332A	No	No	Yes	No	Yes	No	Yes I S S S M M M	NOTE: The Cat. 1 components associated with containment isolation are monitored with system 1312A, Containment Isolation. These components will be considered a portion of the Containment solation System. Additionally, electrical components associated with the cold shutdown air compressors are Cat. 1 to provide electrical eparation from their Cat. 1 power source. The cold hutdown compressors and air supply functions are of Cat. 1 but are currently included in maintenance le scope. For EOPs, restore function to support intigation.

And a second state when the second state of the second second second second second second second second second	ID	ID	Related	Trans	COPS	SR func	or SS	Sig	In Scope	Bases/Remarks
ompressed Gases: Nitrogen	GN2	3333	No	No	No	No	No	No	No	The Cat. 1 components are associated with containment isolation and are monitored with system 3312A. Containment isolation
ompressed Gases: Station Air	ASA	3332C	No	No	No	No	No	No	No	The Cat. 1 components are manual valves associated with containment isolation and are monitored with system 3312A, Containment Isolation
ond Chem Regen: Cond Chem Reger	n CNC	3319C	No	No	No	No	No	No	No	
and Chem Regen: CPF Liq Radwaste	CPL	3319C	No	No	No	No	No	No	No	
and Demin CC: Cond Demin CC	CDC	3319C	No	No	No	No	No	No	140	
and Demin CC. Cond Demin SW	CDS	3319C	No	No	No	No	No	No	NO	
ondensate: Condensate	CON	3319A	No	No	Yes	No	No	NO	No	
indensate: Condensate Demins	CDM	3319C-1	No	No	No	No	No	NO	res	
ndensate: Condenser Air Removal	CVS	3329	No	No	Var	No	NO	NO	No	
					165	NO	Tes	NO	Yes I	NOTE: a. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96-362. b. System monitored under Condensate System (3319A) function. c. EOPs for SGTR Recovery.
idensate: Storage & Make-up	CST	33198	No	Yes	Yes	No	No	No	Yes M F S U R C S S W C C S M (3) M	NOTE: SAR (10.4.9.2) states that the Condensate itorage Tank (CST) is NOT Safety Related and herefore NOT considered available for Safety related purposes. The ONLY function placing the condensate: Storage & Make-up System "In- cope". [providing an alternate source of make-up ater to the Aux Feedwater System during accident onditions] Therefore, that function will be onitored in the Auxiliary Feedwater System 322); Thus removing the Condensate: Storage & ake-up System (31198) from "In Scene"
densate: Turbine Plant Sample	CSA	3311B	No I	No N	lo	No	No N	10	No	and oh olargui (221ab) nour tu-2cobe.

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Containment Hydrogen Monitoring	CSF	3311C-2	Yes	Yes	No	No	No	No	Yes	NOTE: The Post Accident Sample System is a back-up to the DBA H2 Recombiner system. The GASEOUS functions (3311C-2) are included with this System.
Containment Vent: Air Filtration	СРН	3313D	No	No	Yes	No	No	No	Yes	NOTE: This system is not safety related per FSAR Para 9.4.7.1.3.
										The Cat 1 Components contained within this system are associated with Containment Isolation function only. These components will be considered a portion of the Containment Isolation system. MEPL "draft" (CD-1024). The other Cat. 1 IDs in this system are electrical isolation relays/devices which is monitored with the safety related system.is/functions they protect.
										Orignially, this system was removed from the "In- Scope" tist. Refer to the Expert Panel meeting minutes MEMO's MES-95-139, & 170. Approved by the Expert Panel at the SEP 27, 95 meeting. Refer to MEMO MES-95-257. However, subsequent scoping reviews changed this system and the system was added to scope, refer to memo M3-TS- 97-041.
Containment Vent. Air Recirculation	СРН	3313B	No	Yes	Yes	No	No	No	Yes I	NOTE: Containment Vent: Air Recirculation -This system is not safety related per FSAR Para 9.4.7.2. The Cat 1 Components contained within this system are associated with the Fan power supplies. These components will be considered a portion of the Electrical Distribution system. ((Safety Related changed from "Y" to "N" to rflect FSAR 9.4.7.2) The Cat. 1 IDs in this system are electrical isolation elays/devices which is monitored with the safety elated systems/functions they protect.

System Name	PMMS	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Containment Vent: CRDM Cooling	СРН	3313C	No	No	Yes	No	Yes	No	Yes	NOTE: Per FSAR page 9.4-39 para 9.4.7.4.3 the sub system is not safety related. The sub system is contained within the unit's EOP's.
Containment Vent: Purge Air	CPH	3313E	No	No	No	No	No	No	No	NOTE: In-Scope = "Y" CHANGE to "N"; Safety Related = "Y"; CHANGE to "N"; The system is non safety related per FSAR Para. 9.4.7.3. The Cat 1 IDs in this system are 1) temperature controllers which should be in system 3314A, Aux. Bldg. Vent. 2) Containment Isolation dampers which are monitored in system 3312A, and SCLRS damper limit switches which are monitored in systems 3314I. These components are monitored by their respective systems.

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Containment Vent: Vacuum	СРН	3313F	No	No	Yes	No	No	No	Yes	NOTE: This is NOT a Safety Related System; Only the Containment Isolation function (i.e.; 3CVS*CTV 20A & 21A, 3CVS*CTV 20B & 21B) is Safety Related. The Containment Isolation function will be monitored under the Containment Isolation (3312A) System.
										The system is used within the EOP's as the fulfunction backup to the DBA H2 recombiners. However, The system was originally not included in scope. SD 3313F Rev. 0, Page 7 of 28 Section 1.2.3; "The nonnuclear safety class portion of the containment vacuum system shall not be required to operate for a long time after a DBA, because of the slow rise in containment pressure resulting from inleakage (conservatively, 0.033 psi/day). Therefore, there would be ample time to repair or replace the containment vacuum system equipment".
										However, this decision was changed to include the system in-scope, ref. memo M3-TS-04
										THIS system DOES NOT provide a Significant Mitigative" function and was removed from the "In- Scope" list by unanimous vote of the Expert Panel on March 28, 1995. Refer to MEMO's MES-95-069, k 078.
Containment: Atmosphere Monitor	CMS	3312C	No	No	No	No	No	No	No 1 a	he containment isolation functions of this system are included in system 3312A. The radiation
Containment Containment Isolation	CNT	3312A	Yes	Yes	Yes	No	No 1	res	Yes N (r in is P ct de	IOTE: EOPs = N changed to EOP =Y on 10/10/96 efer to MS-TS-96-025) All Cat. 1 IDs are currently scope for Safety Related function Containment iolation. A search of Cat. 1 IDs associated with MMS system designator "BDS" identified omponents which are monitored in systems esignated as safety related.

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System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Containment: DBA H2 Recombiner	CPI	3313A	Yes	Yes	Yes	No	No	No	Yes	SEE FSAR 6.2.5. & 9.4.11
Containment: Leak Monitoring	LMS	3312B	Yes	Yes	Yes	No	No	No	Yes	NOTE: The Cat I components contained within this system are associated with Containment Temperature, & the Pressure inputs to the ESFAS system. See: FSAR 6.2.5, 7.6.7, & 9.3.2.6
Control Bidg Vent: Control Bidg A/C	ACC	3314F	Yes	Yes	Yes	No	No	No	Yes	
Control Bldg Vent: Control Bldg Chill Water	CBW	3314F	Yes	Yes	No	No	No	No	Yes	NOTE: The Control Bldg Vent: Control Bldg Chill Water System functions are included with the Control Bldg Vent: Control Bldg A/C System.
Jontrol Rod Drive. Control Rod Drive	CRD	3302	No	No	Yes	No	Yes	No	Yes	NOTE: 1.1 3302 - Control Rod Drive - The Cat 1 components are associated with Reactor Coolant Pressure Boundary and are monitored with RCS, system 3301. Per FSAR Volume 10 Section 7.7.1.2 "Control Systems NOT Required for Safety", EOPs; for ATWS event, have to drive the rods in.
									1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Risk Significant = "Y" CHANGE to "N"; Risk Significance was originally determined at the system level. The function that is risk significant is he Rx Trip Breakers and is monitored/included with SSPS function 1.01. Refer to memos MES-95-305 MES-95-314
									a o S	Gafety Related = "Y" CHANGE to "N"; The Cat L components contained within this system re associated with the Rx Trip Breakers. Those omponents will be considered a portion of the SPS system.
ontrol Rod Drive. Digital RPI	CRD	3409	No	No	Yes	No	No M	40	Yes N C E 34 m	OTE: Per FSAR Volume 10 Section 7.71.3.2 Control Systems NOT Required for Safety". riginally removed from In scope listing per MP3 xpert panel on 12/06/96 (refer to memo MES-95- 14) However, this decision was later changed, ref. emo M3-TS-041.

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System Name	PMMS ID	Local ID	Safety	Acc'd Trans	EOPs	SR func	Scram or SS	Risk Sig	In Scope	Basəs/Remarks
Control Rod Drive: Electrical 120-277 vac	ES1	3302B	No	No	Yes	No	Yes	No	Yes	NOTE: The Control Rod Drive: Electrical 120-277 vac System functions are included with the Control Rod Drive: Control Rod Drive System. EOPs, For ATWS event have to drive rods in.
Control Red Drive MrC Colo										Risk Significant = "Y" CHANGE to "N"; Risk Significance was originally determined at the system level. The function that is risk significant is the Rx Trip Breakers and is monitored/included with SSPS function 1.01 Refer to memos MES-95-305 & MES-95-314
Control Hou Drive. M/G Sets	MGS	3302A	No	No	Yes	No	Yes	No	Yes	NOTE: The Control Rod Drive: M/G Sets System functions are included with the Control Rod Drive: Control Rod Drive System. EOPs; for ATWS event, have to drive the rods in.
										Risk Significant = "Y" CHANGE to "N"; Risk Significance was originally determined at the system level. The function that is risk significant is the Rx Trip Breakers and is monitored/included with SSPS function 1.01. Refer to memos MES-95-305 & MES-95-314
VCS. Bonc Acid	BAS	3304C	Yes	No	Yes	No	No	No	Yes I F F I ir	NOTE: Sisk Significant = "Y" CHANGE to "N"; 'er "Expert Panel" MTG of 22 NOV 94. Refer to MES-94-256, -300 & -428. 'he CVCS:Boric Acid System functions are included with the CVCS: Chemical & Volume control System
VCS: Boron Thermal Regen	CVC	3304D	Yes	No	No	No	No I	No	Yes N T n S) pf ac m In Th	OTE: 1.3 3304D - Boron Thermal Regeneration - he system contains Cat. 1 components but was ever place in service. However, because the ystem has never been formally abandoned or hysically isolated from the CVCS system, it will be ided to scope until the decisions to abandon are ade. -Scope = "Y" CHANGE to "N"; his System is currently (29 ALIG 94) NOT in USE

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
CVCS: Charging Pp	CHG	3304A	Yes	Yes	Yes	No	No	Yes	Yes	NOTE: The CVCS: Charging Pp System functions are included with the CVCS: Chemical & Volume Control System
CVCS. Charging Pp Cooling	CCE	3330D	Yes	Yes	Yes	No	No	Yes	Yes	NOTE: The CVCS: Charging Pp Cooling System functions are included with the CVCS: Chemical & Volume Control System.
CVCS Chem & Volume Control	CVC	3304	Yes	Yes	Yes	No	No	Yes	Yes	
CVCS Letdown	CVC	3304A	Yes	Yes	Yes	No	No	No	Yes	NOTE: The CVCS: Letdown System functions are included with the CVCS: Chemical & Volume Control System
Electrical - AC: Lighting - Emergency	LTG	37208	No	Yes	Yes	No	No	No	Yes	Appendix R Liphting
Electrical - AC: Lighting - Grounding	LTG	3720C	No	No	No	No	No	No	No	A promate recenting
Electrical - AC: Lighting - Normal	LTG	3720A	No	No	No	No	No	No	Mo	
Electrical - AC: Non Vital 120 vac	ENV	3345A	No	No	Yes	No	No	No	Yes	NOTE: The Cat. 1 components provide circuit continuity to safety related loads and are associated with system 3345B, Vital 120 vac, which is in scope for safety related functions. This system provides power to other non safety systems which are in- scope
Electrical - AC: Non-Vital 480 volt	ELC	3344A	No	No	Yes	No	No	No	Yes	This systems provides power to other non safety systems which are in scope.
ectrical - AC: Non-Vital MCC's	MCC	3344BN	No	No	Yes	No	No	No	Yes	This system provides power to other in-scope systems.
lectrical - AC: Non-Vital 4160 volt	ES4	3343	No	No	Yes	No	Yes	No	Voe	

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Electrical - AC: Non-Vital 6900 volt	ES6	3342	No	No	Yes	No	Yes	No	Yes	NOTE: This is a required support system for the RCPs, Condensate, & a Feedwater Pump.
										Safety Related = "Y" CHANGE to "N": The Cat I components within this system are associated with annunciators, interlocks, and computer points for the transforms, load buses & the breakers.
Electrical - AC: Vital 480 volt	ES0	3344A	Yes	Yes	Yes	No	No	Yes	Yes	
Electrical - AC: Vital MCC's	MCC	3344B	Yes	Yes	Yes	No	No	Yes	Yes	
Electrical - AC: Vital 120 vac	EVI	33458	Yes	Yes	Yes	No	Yes	Yes	Yes	NOTE: This system includes the Electrical - AC: Vital 120 vac Inverters. The Cat. 1 components, in 3345A AC: Non Vital 120 vac, provide circuit continuity to safety related loads and are associated
										with this system. The Cat. 1, in 3345B-2, are included with the safety related functions of this system.
Electrical - AC: Vital 4160 volt	ES4	3343V	Yes	Yes	Yes	No	Yes	Yes	Yes	
Electrical - DC: DC 125 vdc - Control	EDC	3345C	Yes	Yes	Yes	No	Yes	Yes	Yes	
Electrical - DC: DC 125 vdc - Turbine	EDC	3345D	No	No	No	No	Yes	No	Yes	 a. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96- 362. b. System monitored under Turbine Generator System (3324).
Electrical - Gen : High Voltage - 345 KV	E34	3351	No	No	Yes	No	Yes	Yes	Yes	NOTE: Risk Significant = "N"; CHANGE to "Y"; Per "Expert Panel", Refer to MES-94-256, -300, & NE-94-SAB-293. COORDINATE w/SITE John Kennedy
									1	The Electrical - Gen.: High Voltage - 345KV System unctions are included with the Normal Power [3347] System.

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Electrical - Gen.: Low Voltage - 24 KV	E24	3324A	No	No	No	No	Yes	No	Yes	NOTE: The Electrical - Gen.: Low Voltage - 24KV System functions are included with the Normal Station Service Transformer (NSST) [3347B] System. The CAT 1 components are Generator Bus C iemperature elements.
Electrical - Gen.: Main Transformer	TRM	3347C	No	No	Yes	No	Yes	Yes	Yes	NOTE: The Electrical - Gen.: Main Transformer System functions are included with the Normal Power [3347] System.
Electrical - Gen : Normal Transformer	TRN	3347B	No	No	Yes	No	Yes	Yes	Yes	NOTE: The Electrical - Gen.: Normal Transformer System functions are included with the Normal Power [3347] System.
Electrical - Gen Reserve Transformer	RSE	3347A	No	No	Yes	No	No	Yes	Yes	NOTE: The Electrical - Gen.: Reserve Transformer System functions are included with the Normal Power [3347] System.
Electro-Hyd. Control: EHC	EHC	3323C	No *	No	No	No	Yes	No	Yes	NOTE: The Electro-Hyd. Control: EHC System functions are included with the Turbine Generator: Turbine Generator System. The Cat. 1 components are electrical isolation relays/devices which is monitored with the safety related systems/functions they protect (RPS). The FSAR indicates that this instrumentation is NOT Safety Related and NOT credited in any accident analysis.
Emergency Diesel: EDG Rm. Ventilation	DGV	3314H	Yes	Yes	No	No	No	Yes	Yes	NOTE: Risk Significant = "N", CHANGE to "Y"; Per "Expert Panel", Refer to MES-94-300
mergency Diesel: Engine	DES	3346A	Yes	Yes	Yes	No	No	Yes	Yes I	NOTE: The Emergency Diesel: Engine functions are included with the Emergency Diesel: Generator System.

Systom Name	PMM5 ID	Local ID	Safety Related	Acc'd Trans	EOP	Prevent SR func	Scram or SS	Risk Slg	In Scope	Bases/Remarks
Emergency Dieset: Exhaust & Misc Inst	DAX	3346A	15	No	No	No	No	No	Yes	NOTE: In-Scope = "Y" CHANGE to "N"; Safety Related = "Y"; CHANGE to "N"; Risk Significant = "Y"; CHANGE to "N"; This system included the EDG - Auxiliaries. Per "Expert Panel", Refer to MES-94-256 & 300. The Emergency Dieset: Exhause & Misc Inst functions are included with the Emergency Dieset: Generator System.
Emergency Diesel: Fuel Oil	DFS	334ôB	Yes	Yes	No	No	No	Yes	Yes	NOTE: Thergency Diesel: Fuel Oil System functions fed with the Emergency Diesel: Generator Sy
Emergency Diesel: Generator	DGN	3346A	Yes	Yes	Yes	No	Yes	Yes	Yes	김 씨는 것은 것은 아파에서 물질을 했다.
Emergency Diesel: Lube Oil	DLS	3346A	Yes	Yes	Yes	No	No	Yes	Yes	NOTE: The Emergency Diesel: Lube Oil System functions are included with the Emergency Diesel: Generator System.
Emernency Dieset: Starting Air	DSA	3346A	Yes	Yes	No	No	No	Yes	Yes	NOT The Emergency Diesel: Starting Air System functions are included with the Emergency Diesel. Generator System.
mergency Diesel Station Blackout	SEO	3346C	No	No	Yes	No	No	Yes	Yes	
SAS EGLS	ESA	3405	Yes	Yes	Nu	No	No	Yes	Yes	NOTE: The ESAS: EGLS System functions are included with the Reactor Protection; SSPS System
SA. Westinghouse 7300 Racks	ESA	3407A	Yes	Yes	Nc	80	Yes	Yes	Yes	MOTE: The ESAS: Westinghouse 7300 Racks System functions are included with the Reactor Protection: SSPS System

System Name	P#/mS 17	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scrat or SS	m Rísi S Sig	k In Scor	Bases/Remarks
ESF - Injection: Accumulators	SIL	3307A	Yes	Yes	Yes	No	No	Ye	s Ye	NOTE:
										Risk Significant = "Y";
										SEE MES-94-256,-300 & NE-94-SAB-293. The outlet check valves are Risk Significant and must have performance criteria established. The
										tanks may be monitored under existing programs.
										CTMT Isolation Vivs (N2) Check valves/MOV for RCS Isolation.
										The Containment Isolation function is monitored
ECC Interface LIDER										under the Containment: Containment Isolation System (3312A).
Cor injection HPSI	HPI	3308	Yes	Yes	Yes	No	No	Yes	Yes	이 이번 것이 같은 것이 물건이 없어?
ESF - Injection: LPSI	LPI	3307A	Yes	Yes	No	No	No	Yes	Yes	The ESF - Injection I PSI System functions
ECE binder D										included with the ESF - Injection Accumulators & ESF - Injection: Residual Heat Removal systeme
ESF - Injection: Recirculation Spray	CRS	3306	Yes	Yes	Yes	No	No	Yes	Yes	the test of a systems.
ES? Injection: Residual Heat Removal	RHR	3307B	Yes	Yes	Yes	No	No	Yes	Yes	
ESF - Injection RVVST & Recirculation	QSS	3307C	Yes	Yes	Yes	No	No	Yes	Vee	
ESF - Injection: St Pp Ceoling	CCI	SUDE	Yes	Yes	Yes	t'o	hin	Ves	res	
						140	110	res	Yes	NOTE: The ESF - Injection: SI Pp Cooling System functions are included with the ESF - Injection:
ESF - Quench Spray Quench Spray	Q23	3309	Yes	Yes	Yes	No	No	Vee	Ver	HPSI System.
ESF Ventilation ESF Bldg	ESG	3314D	Yes	Yes	No	No	No	No	Yes	
ESF Ventilation: ESF Bldg - Normal Vent	ESG	3314DN	No	No	No		140	NO	res	
							NO	No	Yes	Provides indirect support based on shutdown risk procedures.
eedwater. Feed Pump	FPS	3321A	Yes	Yes	Yes	No	Yes	Yes	Yes	NOTE
										The Feedwater: Feed Pump System functions are included with the Feedwater: Feedwater System
ecowater. Feedwater	FWS	3321A	Yes	Yes 1	les	No	Yes	Yes	Yes	i constar oystem.

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System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Feedwater: Pump & Drive Lub	FWL	3321D	No	No	Yas	No	Yes	No	Yes	NOTE: The Feedwater: Pump & Drive Lub System functions are included with the Feedwater: Feedwater System.
Feedwater. Recirculation	FWR	3321A	No	No	No	No	Yes	No	Yes	
Feedwater: S/G Level Control	FWS	3321C	No	No	Yes	No	No	No	Yes	NOTE: Per FSAR Volume 10 Section 7.7.1.7 "Control Systems NOT Required for Safety".
										Safety Related = "Y" CHANGE to "N"; The Cat I components within this system were misclassified circuit cards, they were downgraded per MEPL MP3-CD-1054
eedwater: Seal & Leakoff	FWP	3321B	No	No	Yes	No	Yes	No	Yes	 a. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96 362. b. System monitored under the Feedwater system (3321A).
ire Protection: Alarm & Detection	FIR	3341D	No	Yes	Yes	No	No	No	Yes	이 많아서 안정적 물건이 있었다.
ire Protection: CO2	FPC	3341C	No	Yes	Yes	No	No	No	Vec	
ire Protection: Deluge	FPD	3341A	No	Yes	Yes	No	No	No	Ves	
ire Protection: Fire Protection	FIR	3341	No	Yes	Yes	No	No	No	Yes I	Maintenance Rule seudo system for other Fire
re Protection: Halon	FPG	3341B	No	Yes	Yes	No	No. I	No	Vor	Totection System Functions.
re Protection: Water	FPW	3341A	No	Yes	Yes	No	No. 1	No	Ves	
land Seal Wtr./Exh.: Giand Seal & Exhaus	GSE	3323D ·	No	No	Yes	No	Yes 1	No No	Yes a S G	System added to in-scope for "could cause" a cram. Expert Panel meeting minutes MP3-TS-96- 62. b. System monitored under the Turbine enerator System (3324). Scoping revised to add
									E	OP criterion for SGTR recovery. Refer to EP mtg. IP3-7S-97-041.

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scran or SS	n Risk Sig	In Scope	Bases/Remarks
Gland Seal Wtr /Exh.: Gland Seal Wtr. & Ex	SGE	3323D	No	No	Yes	No	Yes	No	Yes	The CAT I population was reduced to 0 for scoping based on MP3-TS-94-449 & MP3-TS-94-579. The System was removed from In-Scope 8/1/94. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96- 362. Scoping data was revised to include EOP scoping for SGTR recovery.
Heater Drains: Extraction Drains	HDS	3318	No	No	No	No	Yes	No	Yes	a System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96-
Heater Drains: Feedwater	HDS	3320	No	No	No	No	Yes	No	Yes	 a. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96-362. b. System monitored under the Feedwater System (3321A).
neater Drains: High Pressure Heaters	HDH	3320	No	No	No	No	Yes	No	Yes	NOTE: System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MPJ-TS-96- 362.
feater Drains: Low Pressure Heaters	HDL	3320	No •	No	No	No	Yes	No	Yes	
ntake Struct. Vent. Supply & Exhaust	ISV	3314G	Yes	No	No	No	No	No	Yes	
fain Steam: Cundenser Air Removal	DTM	3329	No	No	Yes	No	Yes	No	Yes	Per FSAR Volume 12 Section 10.4.2.3 The Condenser Air Removal system is NOT Safety Related. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96-362. Scoping revised to add EOP criterion for SGTR recovery, refer to EP mtg. M3-TS- 87-041.
tain Steam. Main Steam	MSS	3316A	Yes	Yes	Yes	No	Yes	Yes	Yes	
ain Steam. Moist. Sep. Vent & Drain	DSM	3317	No	No	No	No	Yes	No	Yes	
Seam Aroisture Seperator Reheater	MSR	3317	No	No	Yes	No	Yes I	No	Yes N T fu	IOTE: he Moisture Seperator Reheater System (MSR) inctions are included with the Main Steam System (316A).

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scran or SS	n Risk Slg	In Scop	Bases/Remarks e
Main Steam: Reheate Vent & Drain	DSR	3317	No	No	Yes	No	Yes	No	Yes	Isolation of MSR, performed by MSS-MOV50A & B, MSS-AOV-PDV36A & B, and MSS-AOV-PDV-37A & B, are monitored within the Main Steam System
Main Steam: S/G Blowdown	BDG	3316C	No	No	Yes	No	No	No	Yes	NOTE: The Cat. 1 components are associated with containment isolation and are monitored with system 3312A, Containment Isolation.
Main Steam: Steam Dump Control	STG	3316B	No	No	Yes	No	Yes	No	Yes	NOTE: Per FSAR Volume 10 Section 7.7.1.8 "Control Systems NOT Required for Safety".
Main Steam. Steam Generator	STG	3316A	Yes	Yes	Yes	No	No	Yes	Yes	NOTE: The Main Steam: Steam Generator System Secondary Side functions are included with the Main Steam: Main Steam System.
Main Steam: Turbine Plant Drains	DTM	3316A	No	No	No	No	No	No	No	NOTE: The Cat I components contained within this system are associated with the Containment Isolation function only. These components will be considered a portion of the Containment Isolation System. The functions addressed with EOPs are also Ctmt Isolation.
Main Turb. Lube Oil: Main Turb. Lube Oil	LOS	3323B	No	No	No	No	Yes	No	Yes	 a. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96- 362. b. System monitored under the Turbine Generator System (3324)
Met Tower	MET	9999	No	No	No	No	No	No	No	This in not a PMMS ID. The Met Tower does not have a PMMS ID. The Met Tower determined not in scope, by the Expert Panel on 2/4/97, pe. i 1P3-TS- 97-054. Not used in EOPs, used in Emerguncy Plan procedures, therefore does not meet the scoping criteria
fisc. Domestic Serv: Domestic Water	DWS	3340A	No	No	Yes	No	No	No	Yes I	Function to fill DWST and provide for feed and bleed cooling for CCI and CCE systems
lisc Domestic Serv: Hot Water Heating	HWH	3331D	Yes	No	No	No	No	No	Yes	a contract of a systems.
lisc. Domestic Serv: Hot Water Pre-heat	HWH	3331F	No	No	No	No	No	No	No M	CTE: The Cat. 1 components are electrical solation relays/devices which are monitored with he safety related systems/functions they portect

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System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Misc. Domestic Serv: Sanitary	SAN	3336A	No	No	No	No	No	No	No	
Misc. Domestic Serv: Station Sumps	SSS	3950A	No	No	No	No	No	No	No	
Misc. Domestic Serv. Waste Oil Disposal	WOS	3336B	No	No	No	No	No	No	N:0	
Mis. inst & Cont: Annunciators	ANN	3408	No	No	Yes	No	No	No	Yes	NOTE: The Cat. 1 components are electrical isolation relays/devices which are monitored with the safety related systems/functions they protect. Annunciators are nonsafety grade (FSAR 7.1.1.5) ALSO SEE NOTE at Misc. Inst & Cont: Control Circuit Isolators (3415) system. Originally this system was not included in scope. Refer to MP3 Expert Panel Meeting minutes MP3- TS-95-083. This decision was later changed. Refer to EP meeting minutes, M3-TS-97-041.
Misc. Inst & Cont: Aux. Shutdown Panel	ASP	3411	Yes	No	No	No	No	No	Yes	NOTE: The panel is safety related
disc. Inst & Cont: Control Circuit Isolators	BOP	3415	No	No •	No	No	No	No	NO I I I I I I I I I I I I I I I I I I I	NOTE: The Cat. 1 components are electrical isolation relays/devices which are monitored with the safety related systems/functions they protect. Per FSAR Vol 9 Section 7.2.1.1.8, Analog Isolators. The analog signals derived from protection (P) channels for non-protective functions are obtained through isolation amplifiers. By definition, ncn-protective functions include those signals used for control, remote process indication, and computer monitoring.
									E E E E E E E E E E E E E E E E E E E	Digital Isolators; Are provided where necessary for BOP equipment. Isolator cabinets provide an interface between Class IE equipmen, and NON- Class IE equipment. Is the (3) generic instrument functions [Provide isplay, alarm, and control signals & functions] will apture all Reg Guide 1.97 instruments and their inctions.
isc. Inst & Cont: EEQ Area Temp Monitor	ECS	3311E	No	No 1	No	No	No M	No i	No	

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Misc. Inst & Cont. Foxboro Spec 200 Rack	CES	3407B	Yes	No	No	No	No	No	Yes	Misc. Inst & Cont: Foxboro Spec. 200 - This system contains numerous Cat. 1 IDs (power supplies, signal conditioners, isolators, etc.) associated with safety related instrument functions from other systems. Many functions are included in customer systems as well.
Misc Inst & Cont Main Control Boards	MCB	3414	Yes	No	No	No	No	No	Yes	NOTE: The MCBs are safety related
Misc Inst & Cont Plant Computer	CMP	3349	No	No	Yes	No	No	No	Yes	NOTE: The Plant Computer DOES NOT directly support critical safety functions. Further, By lisence, the operators are required to perform with the computer inoperable. Therefore, the system was not originally included in scope to the rule. Refer to MP3 Expert Panel Meeting Minutes MP3-TS-96- 083. However, this decision was later changed based on operator desire to have this system available for EOP mitigation.
Misc. Inst & Cont. Security	SEC	3721	No	No	No	No	No	No	No	NOTE: Security Sysyems are "OUTSIDE the SCOPE of the Maintenance Rule" Per Section 8.2.1.6 of NUM/ARC 93-01.
Misc. Inst & Cont. Seismic Monitor	SEM	3413	No	No	No	No	N.	No	No	NOTE: The only components within this system which are classified as CAT i as of 11/15/94 are 5 batteries used within the seismic instruments as backup power. The instruments themselves are not Cat I. Therefore the system itself is not safety related
N Shield Tk Cooling: N Shield Tk Cooling	NSC	3330F	No	No	No	Yes	No	No	Yes f t s in s fi E	NOTE: The one Cat. 1 ID is the neutron shield ank, 3NSS*TK2 which is safety related because it support the reactor vessel. This function will be included in 3301A, Reactor Ccolant: Vessel. The system was added to scope as it provides a unction to moderate neutrons for functioning of the excore Nuclear Instrumentation.
Iormal Power System	NPS	3347	No	No	Yes	No	Yes	Yes	Yes N	IOTE: "LACED "IN-SCOPE" AS A ROLL-UP SYSTEM

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	in Scope	Bases/Remarks
Nuclear Instruments: Excore - Gammametri	NME	3401	Yes	Yes	Yes	No	No	No	Yes	NOTE: Risk Significant = "Y"; CHANGE to "N"; Per "Expert Panel", Refer to MES-94-25/ & -300
Nuclear Instruments: Incore NI's	IMS	3403	No	No	No	No	No	No	No	NOTE: The Cat. 1 component is the seal table which is safety related due to its RCS pressure boundary function. This function is monitored with systems 3301, RCS. Per FSAR Volume 10 Section 7.7 "Control Systems NOT Required for Safety"; The facore Instrumentation system is listed in Section 7.7.1.9 Approved by the Expert Panel at the SEP 13, 95 meeting. Refer to MEMO MES-95-230.
Nuclear Instruments. Intermediate Range	NMI	3401	Yes	No	Yes	No	No	No	Yes	NOTE: The Nuclear Instruments: Intermediate Range System functions are included with the Nuclear Instruments: Excore - Gammametrics System
Nuclear Instruments: Power Range	NMP	3401	Yes .	Yes	Yes	+0	No	No	Yes	NOTE: The Nuclear Instruments: Power Range System functions are included with the Nuclear Instruments: Excore - Gammametrics System.
Nuclear Instruments: Source Range	NMS	3401	Yes	No	Yes	No	Yes	No	Yes I	NOTE: The Nuclear Instruments: Source Range System functions are included with the Nuclear Instruments: Excore - Gammametrics System.

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Slg	In Scope	Bases/Remarks
Post Accident Sample: Liquid Sample	PAS	3311C-1	Yes	No	No	No	No	No	Yes	NOTE: The Post Accident Sample System LIQUID functions(3311C-1) ONLY are included with this System. Some Cat. 1 components within this system are valves that are actually part of the Air Sample & Monitor system 3311C-2. The Cat. 1 components associated with boundary valves for RCS, LPSI, QSS, and CVCS are monitored by their respective systems. The Cat. 1 components associated with containment isolation which are monitored with system 3312A. Containment Isolation. The Cat. 1 components assciated with electrical isolation relays/ devices are monitored with the safety related systems/functions they protect. Additionally, the system contains numerous expansion joints which are Cat. 1 because sample piping originating from safety related equipment out to the sample selection valves or second manual was designed as safety class 2 or 3.
Primary Water: Primary Water	PWS	3340C	No	No	No	No	No	No	No	NOTE: The Cat. 1 components are associated with containment isolation and are monitored with system 3312A, Containment Isolation
Radiation Monitors: Radiation Monitors	RMS	3404	Yes	Yes	Yes	No	No	No	Yes	
Radioactive Waste: Boron Recovery	BRS	3335C	No	No	No	No	No	No	No	NOTE: In-Scope = "Y" CHANGE to "N"; Safety Related = "Y"; CHANGE to "N"; NO Safety Related function. The 4 CAT 1 components are loop recorders & alarm modules
adioactive Waste: Gaseous	GWS	3337 •	No	No	No	No	No	No	No I	NOTE: The Cat. 1 components are associated with containment isolation valves and secondary containment isolation which are monitored with system 3312A, Containment Isolation and 3314I, SLCRS respectively.
adioactive Waste: Gaseous	GWS	3337	No	No	No	No	No I	No	No	

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Base
Radioactive Waste: Glycol Heating	GHT	3337	No	No	No	No	No	No	No	NOTE: In-Scope = "Y" CHANGE to "N"; Safety Related = "Y"; CHANGE to "N"; The Cat I components contained within this system are associated with the the Hot Water Preheating supply & return line SOV's (P&ID 137B) for Area Ventilation Units in the Auxiliary Bldg. They do not provide any significan; mitigative function.
Radioactive Waste: Liquid	RLW	3335B-2	No	No	No	No	No	No	No	NOTE: The EOP 3505A (Loss of Spent Fuel Pool Cooling) checks for the "RAD LIQUID WASTE TROUBLE" annunciator, However, if lit go to AOP 3572 (Failure of Refueling Cavity Seal), the EOP does not provide any significant mitigative function. Approved by the Expert Panel at the SEP 13, 1995 meeting. Refer to MEMO MES-95-222, & 230.
Radioactive Waste: Liquid and AER Drains	RLW	33358-1	Yes	No	No	No	No	No	Yes	The Cat. 1 components associated with containment isolation valves are monitored with system 3312A. The Cat. 1 components for electrical separation are monitored with the safety related systems/functions they protect.
Radioactive Waste: Rx Plant Gas	VRS	3337	No	No	No	No	No	No	No	NOTE: The Cat I components contained within this system are associated with the Containment Isolation function only. They are considered a portion of the Containment Isolation system.
Radioactive Waste: Rx Plant Gas Drains	DGS	3335A	No	No	No	No	No	No	No (IOTE: The Cat. 1 components are associated with containment isolation valves which will be monitored with the Containment Isolation system 3312A
Radioactive Waste: Solid	SRS	3338	No	No	Na	No	No	No	No	
Reactor Coolant: Incore Thermocouples	CTS	3410A	Yes	No	No	No	Yes	No	Yes M F S C	NOTE: Per FSAR Volume 10 Section 7.7.1.9.1 "Control systems NOT Required for Safety". (Safety Related hanged from "Y" to "N")
									T	his system includes the Inadequate Core Cooling Ionitor (ICCM)

System Name	PMMS ID	Local ID	Salety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Reactor Coolant: RCP Vibration Monitor	RCP	3402	No	No	No	No	No	No	No	
Reactor Coolant Reactor Coolant	RCS	3301	Yes	Yes	Yes	No	Yes	Yes	Yes	NOTE: This system includes the Primary Side of the S/G & the Pressurizer functions.
Reactor Coolant. Reactor Coolant Pp	RCP	3301	Yes	Yes	Yes	No	No	No	Yes	NOTE: The Pressure Boundary integrity (Radioactive Fluid) function is included with the Reactor Coolant: Reactor Coolani (3301) system.
Reactor Coolant. Reactor Vessel Level	RVL	3410B	Yes	No	Yes	No	No	No	Yes	
Reactor Coolant: Sampling	SSR	3311A	Yes	No	No	No	No	No	Yes	NOTE: The Cat. 1 components are associated with containment isolation and associated electrical isolation devices which are monitored with system 3312A. Containment Isolation. Additionally, the system contains numerous expansion joints which are Cat. 1 because sample piping originating from safety related equipment out to the sample selection valves or second manual was designed as salety class 2 or 3. The MEPL indicates that the sampling function is not safety related. This function is not currently monitored through RCS leakage
eactor Coolant: Vessel	RXX	3301A	Yes	No	Yes	No	No	No	Yes I	NOTE: The Reactor Coolant. Vessel system includes the vessel, internals and fuel
eactor Protection SSPS	RPS	3406	Yes	Yes	Yes	No	Yes	Yes	Yes	
PCCW: RPCCW	CCR	3330A	Yes	Yes	Yes	No	No	Yes	Yes F	NOTE: Risk Significant = "N" CHANGE to "Y"; Per "Expert Panel" MTG of 22 NOV 94 SEE MES-94-428 & NE-94-SAB-407.
x Fuel Handling. Rx Fuel Handling	FHS	3303	Yes	No	No	No	Yes	No	Yes M	IOTE: The Cat. 1 IDs are associated with safety elated functions of the equipment for supporting RDMs and handling fuel. See FSAR Table 3.2-1

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Rx Plant Chill Water: Rx Plant Chill Water	CWD	3330C	No	No	No	No	No	No	No	NOTE: The Cat. 1 components are associated with containment isolation and are monitored with system 3312A, Containment Isolation Per Volume 10 FSAR Section 9.2.2 (Cooling Systems for Reactor Auxiliaries) & 9.2.2.2 (Chilled Water System) "Single failure evaluations are NOT presented for the chilled water system since the system is neither safety related nor required for a safe reactor shutdown".
Plant Ventilation. Aux Bldg Vent	RPV	3314A	Yes	Yes	No	No	No	No	Yes	
Rx Plant Ventilation: Fuel 3ldg	RPV	3314C	Yes	Yes	Yes	No	No	No	Yes	
Rx Plant Ventilation: SLCRS 돌바ration	RPV	33141	Yes	Yes	No	No	No	No	Yes	NOTE: CD-1145 changed door WD-43-2 to safety related because it is part of the SLCRS boundary. This door separates the Aux. Bldg and the Waste Disposal Bldg CD-1145 indicates that the Wast disposal Bldg., System 3900D, is not sagety related. Monitoring of door WD-43-2 will be accomplished with the SLCRS system, 3314i.
Rx Plant Ventilation: Waste Disposal	RPV	3314B	Yes	No	No	No	No	No	Yes	NCTE: The Cat I components contained within this system are associated with the SLCRS function only. These components will be considered a portion of the Rx Plant Ventilation: SLCRS Filtration (3314I) System.
Screen Wash: Screen Wash	SCW	3327	No	No	Yes	No	Yes	No	Yes	EOPs for SGTR recovery, refer to EP mtg. M3-TS- 97-041.
Screen Wash: Traveling Screens	TRS	3327	No	No	Yes	No	Yes	No	Yes	EOPs for SGTR recovery, refer to EP mtg. M3-TS- 97-041.
Service Bldg Vent: Office Bldg Vent	OBV	3314E	No	No	No	No	No	No	No	
Service Bldg Vent: Serv. Bldg. Air Condition	ASB	3314E	No	No	No	No	No	No	No	
Service Bldg Vent: Serv. Bldg. Ventilation	SBV	3314E	No	No	No	No	No	No	No	

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Slg	lin Scope	Bassa/Remarks
Service Water: Chlorine	CHL	3328	No	No	No	No	No	No	No	NOTE: The Cat. 1 components are to isolate this system from the Service Water in accident conditions. This isolation function is currently addressed within the Service Water system, 3326. (3WTC*AOV25A & 3MTC*AOV25B)
Service Water: Service Water	SWS	3326	Yes	Yes	Yes	No	No	Yes	Yes	NOTE: The following components from the Service Water: Chlorine System (3328) will be considered as part of the Service Water: Service Water System (3326) - 3WTC*AOV25A - 3WTC*AOV25B
Spent Fuel Cooling: Spent Fuel Cooling	SFC	3305	Yes	Yes	Yes	No	No	No	Yes	Designated Non-risk Significant by Expert Panel Refer to memo MES-95-310 & MES-95-321
Structures: Aux Boiler Bldg	BGB	3900P	No	No	No	No	No	No	No	
Structures: Auxiliary Building	BGA	3900B	Yes	Yes	Yes	No	No	No	Yes	NOTE: Part of the SLCRS Boundary
S'ructures: Cond Polish Bldg	BJL	3900N	No	No	No	No	No	No	No	
Structures: Containment Enclosure Bldg	BG1	3900	Yes	Yes	No	No	N.	No	Yes	NOTS: Part of the SLCRS Boundary
Structures: Containment Structure	BGC	3312A	Yes	Yes	Yes	4	No	Yes	Yes	NOTE: Risk Significant = "N", CHANGE to "Y"; Per "Expert Panet" Refer to MES-94-256, -300 & 428
Structures: Control Bidg	BGJ	3900H	Yes	Yes	Yes	No	No	No	Yes	NOTE: Includes the Cable Tunnel
Structures: Cranes & Hoists	BGK	3900R	No	No	No	Yes	No	No	Yes	Polar & high Jib Cranes in Containment.
Structures: Diesel Eng. Bldg	BGD	39001	Yes	No	No	No	No	No	Yes I	NOTE: ncludes the Fuel Oil Tank Vault
dructures: Discharge	BG2	3900	Yes	No	No	No	No	No	Yes f	NOTE: Includes the Circulating Water Discharge Tunnel.
itructures: Elevators	ELV	3900S	No	No	No	No	No	No	No	

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Syste:n Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Structures: ESF Bldg	BGE	3900E	Yes	Yes	Yes	No	No	No	Yes	NOTE: Part of the SLCRS Boundary
Structures: Fuel Bidg	BGF	3900C	Yes	Yes	No	No	(Nec)	No	Yes	NOTE: Includes the Railroad Canopy
Structures: H2 Recomb Bldg	BGH	3900F	Yes	Yes	Yes	No	No	No	Yes	NOTE: Part of the SLCRS Boundary
Structures Intake	BGP	3900K	Yes	No	No	No	No	No	Yes	NOTE: Includes the Circulating & Service Water Pumphouse and the Wasi Retaining Wall
Structures: Misc Bldgs	BGQ	39007	No	No	No	No	No	No	No	
Structures: MSV Bldg	BGM	3900M	Yes	Yes	No	No	No	No	Yes	NOTE: Part of the SLCRS Bound#rv
Structures: Service Bldg	BGS	3900G	Yes	No	No	No	No	No	Yes	NOTE: The only Cat 1. ID is a flood door. FSAR Table 3.2-1 indicates that the Cable Tunnel from the Aux. Bldg. to the Control Building is Cat. 1. The tunnel is considered part of the Service Building. 3900G
itructures. Technical Support Cntr	TSC	39003	No	No	No	No	No	No	No	NOTE: Emergency Facilities Described in the Emergency Plan ars "OUTSIDE the SCOPE of the Maintenance Rule" Per Section 8.2.1.6 cm NLMARC 93.01
tructures: Turbine Bldg	BGT	3900A	No	No	No	Yes	No	No	Yes	
tructures: Warehouse #5	BGR	39001	No	No	No	No	No	No	No	
tructures: Waste Disposal Bldg	BGW	3900D	No	No	No	No	No	No	No M T E d n	HOTE: CD-1145 changed door WD-43-2 to safety elated because it is part of the SLCRS boundary. This door separates the Aux. Bldg and the Waste Disposal Bldg. CD-1145 indicates that the Wast isposal Bldg. System 39000, is not sagety elated. Monitoring of door WD-43-2 will be ccomplished with the SLCRS system 33161
tructures: Yard Areas	YDA	3900Q	Yes	No	No	No	No I	No	Yes T	he Cat 1 components are the safety related

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or 3S	Risk Sig	In Scope	Bases/Remarks
TPCCW: TPCCW	CCT	3330B	No	No	No	No	Yes	No	Yes	System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96- 362.
Turbine Generator: Exciter	MEX	3324E	No	No	No	No	Yes	No	Yes	NOTE: The Turbine Generator: Exciter System functions are included with the Turbine Generator: Turbine Generator System.
Turbine Generation: H2, CO2, & H2 Cooling	MGH	3324C	No	No	No	No	Yes	No	Yes	 a. System added to in-scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96- 362. b. System monitored under Turbine Generator System(3324).
Turbine Generator: Isophase Bus Duct Cool	IBD	3324C	No	No	No	No	Yes	No	Yes	NOTE: The Turbine Generator: Isophase Bus Duct Cooling System functions are included with the Turbine Generator: Turbine Generator System
Furbine Generator: Main Generator	MGN	3324A	No	No	No	No	Yes	No	Yes	a. The CAT 1 components are Generator Bus C temperature elements. b. System added to in- scope for "could cause" a scram. Expert Panel meeting minutes MP3-TS-96-362. c. System monitored under the Turbine Generator System (3324).
Furbine Generator: Shaft Seals	MGO	3324B	No	No	No	No	Yes	No	Yes	a. System is Hydrogen seal oil. System added to in- scope for "could cause" a scram. Expert Ponel meeting minutes MP3-1S-96-362. b. System monitored under Turbine Generator System (3324).
urbine Generator. Stator Cooling	SLC	3324D	No	No	No	No	Yes	No	Yes I	NOTE: The Turbine Generator: Stator Cooling System unctions are included with the Turbine Generator: Turbine Generator System.
									T	The CAT 1 components are Stator coolant internal emperature instruments.
orbine Generator: Supervisory Inst	TSI	3323E	No	No	No	No	No I	No	No E c	xpert Panel determined not in scope for "could ause" a scram. Expert Panel meeting minutes IP3-TS-96-420.

System Name	PMMS ID	Local ID	Safety Related	Acc'd Trans	EOPs	Prevent SR func	Scram or SS	Risk Sig	In Scope	Bases/Remarks
Turbine Generator: Turbine	STB	3323A	No	No	No	No	Yes	No	Yes	NOTE: The Turbins Generator: Turbine System functions are included with the Turbine Generator: Turbine Generator System (3324).
Turbine Generator: Turbine Generator Syst	TGS	3324	No	No	No	No	Yes	No	Yes	HOTE: PLACED "IN-SCOPE" AS A ROLL-UP SYSTEM
Naste Treatment: Waste Water	WTW	3340B	No	No	No	No	Ne	No	No	

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