

50-336

Date: 6/24/97

Doc. ID: NUM2-PPNR-0250-L

Mr. E. V. Imbro  
Deputy Director for ICAVP  
Special Project Office  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Re: Millstone Unit 2 ICAVP  
Action By: NA  
Action Date: NA  
Reference: NA

Dear Mr. Imbro:

Item 3(b) of part IV of the confirmatory order requires the ICAVP team to provide the NRC with risk/safety based criteria for system selection. The Parsons Power ICAVP Audit Plan identifies several criteria that could be used for system selection. The following criterion is applicable to risk based selection.

"Has a high level of risk significance based on PRA insights as determined by a panel of individuals familiar with the Plant PRA."

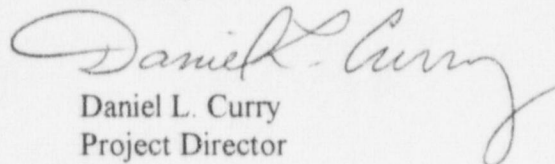
The following documents are attached and intended to assist the NRC panel that is responsible for system selection. These documents provide insights that were used for risk significance determination associated with the Millstone Unit 2 Maintenance Rule.

- Risk Significant Systems (Form 5-PI2)
- Attachment 1, System Train Risk Significant Prioritization

Form 5 provides PRA developed data on the risk significance data for Risk Achievement Worth (RAW) and Risk Reduction Worth (RRW). Attachment 1 lists the corresponding Fussler-Vesely factor for the system which is a sensitivity measure related to the Core Damage Frequency (CDF) associated with the system. Also attached to Millstone Program Instruction PI2 "Risk Significance Determination" which provides the Millstone process and criteria for determination of Maintenance Rule system risk significance.

Please call me at (610) 855-2366 if you require additional information.

Sincerely,

  
Daniel L. Curry  
Project Director

DLC:djv  
Attachments

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PDR ADOCK 05000336  
P PDR



**Attachment 1**  
System Train Risk Significant Prioritization

Description	FV
Turbine Driven AFW Train 'B'	0.335
Motor Driven AFW Train 'B'	0.242
Motor Driven AFW Train 'A'	0.221
EDG Train 'B'	0.145
125v Emergency DC Train 'A'	0.145
EDG Train 'A'	0.128
125v Emergency DC Train 'B'	0.126
RPS	0.087
Service Water Header 'A'	0.065
Service Water Header 'B'	0.065
Main Feedwater Train 'A'	0.057
Main Feedwater Train 'B'	0.057
Sump Recirculation Train 'A'	0.054
Sump Recirculation Train 'B'	0.054
Bus 24C	0.039
Bus 24D	0.039
ESF Room Cooling Train 'A'	0.036
ESF Room Cooling Train 'B'	0.036
RBCCW Header 'A'	0.033
120v Vital AC Train 'A'	0.027
HPSI Train 'A'	0.027
HPSI Train 'B'	0.027
SRV Train 'A'	0.027
SRV Train 'B'	0.027
RBCCW Header 'B'	0.027
RSST	0.022
PORV / Block Valve Train 'A'	0.0196
PORV / Block Valve Train 'B'	0.0196
DC SWGR Ventilation Train 'A'	0.015
DC SWGR Ventilation Train 'B'	0.015
ADV Train 'A'	0.011
ADV Train 'B'	0.011
Containment Spray Train 'A'	0.007
Containment Spray Train 'B'	0.007
LPSI Train 'A'	0.007
LPSI Train 'B'	0.007
SIT #1	0.007
SIT #2	0.007

Description	FV
SIT #3	0.007
SIT #4	0.007
120v Vital AC Train 'B'	0.004
Emergency Boration Train 'A' (Gravity Feed)	0.002
Emergency Boration Train 'B' (Pumps)	0.002
SDC	0.002
RWST	0.0006
ESAS Train 'A'	0.0003
ESAS Train 'B'	0.0003
Instrument Air Supply Header	0
Instrument Air Compressors	0
CARF Train 'A'	0
CARF Train 'B'	0
MSIV # 1	0
MSIV # 2	0
4160v Emergency AC Train 'A'	N/A
4160v Emergency AC Train 'B'	N/A
6.9kv AC	N/A
Shutdown Cooling Train 'A'	N/A
Shutdown Cooling Train 'B'	N/A



**FORM 5**  
**PRA**  
**RISK SIGNIFICANT SYSTEMS**

Plant: MP2

FRONT-LINE SYSTEM	CDF (Y/N)	RAW (Y/N)	RRW (Y/N)	RISK (Y/N)	PLANT SYSTEMS	SUPPORT SYSTEMS
Auxiliary Feedwater Pump 'A'	Y	43.4 (Y)	1.283 (Y)	Y	Auxiliary Feedwater 'A'	All Support Systems Modeled
Auxiliary Feedwater Pump 'B'	Y	45.4 (Y)	1.319 (Y)	Y	Auxiliary Feedwater 'B'	All Support Systems Modeled
Turbine Driven Auxiliary Feedwater Pump	Y	20.5 (Y)	1.503 (Y)	Y	Turbine Driven Auxiliary Feedwater Pump	All Support Systems Modeled
RPS	Y	7363 (Y)	1.096 (Y)	Y	Reactor Protection NI Linear Power Range Control Element Drive	All Support Systems Modeled
Ctmt Sump Recirculation 'A'	Y	28.2 (Y)	1.056 (Y)	Y	RWST Containment Spray	All Support Systems Modeled
Ctmt Sump Recirculation 'B'	Y	28 (Y)	1.056 (Y)	Y	RWST Containment Spray	All Support Systems Modeled
Emergency Diesel Generator 'A'	Y	4.1 (Y)	1.144 (Y)	Y	Emergency Diesel Generator 'A'	D/G Fuel Oil D/G Room Ventilation Control Panels Chilled Water
Emergency Diesel Generator 'B'	Y	4.4 (Y)	1.169 (Y)	Y	Emergency Diesel Generator 'B'	D/G Fuel Oil D/G Room Ventilation Control Panels Chilled Water
125 Volt DC 'A'	Y	152.7 (Y)	1.17 (Y)	Y	125 Volt DC 'A'	None
125 Volt DC 'B'	Y	157.7 (Y)	1.144 (Y)	Y	125 Volt DC 'B'	None
Service Water 'A'	Y	69.7 (Y)	1.07 (Y)	Y	Service Water 'A'	All Support Systems Modeled

**FORM 5**  
**PRA**  
**RISK SIGNIFICANT SYSTEMS**

Plant: MP2

FRONT-LINE SYSTEM	CDF (Y/N)	RAW (Y/N)	RRW (Y/N)	RISK (Y/N)	PLANT SYSTEMS	SUPPORT SYSTEMS
Service Water 'B'	Y	69.7 (Y)	1.07 (Y)	Y	Service Water 'B'	All Support Systems Modeled
SRV A	Y	8.4 (Y)	1.028 (Y)	Y	Pressurizer	None
SRV B	Y	8.4 (Y)	1.028 (Y)	Y	Pressurizer	None
PORV / Block Valve A	Y	23.7 (Y)	1.02 (Y)	Y	Pressurizer	All Support Systems Modeled
PORV / Block Valve B	Y	23.6 (Y)	1.02 (Y)	Y	Pressurizer	All Support Systems Modeled
Main Feedwater 'A'	Y	1.1 (N)	1.06 (Y)	Y	Main Feedwater 'A'	All Support Systems Modeled
Main Feedwater 'B'	Y	1.1 (N)	1.06 (Y)	Y	Main Feedwater 'B'	All Support Systems Modeled
ESF Room Cooling 'A'	Y	12 (Y)	1.037 (Y)	Y	ESF Room Cooling 'A'	Chilled Water
ESF Room Cooling 'B'	Y	11.9 (Y)	1.037 (Y)	Y	ESF Room Cooling 'B'	Chilled Water
HPSI 'A'	Y	22.6 (Y)	1.028 (Y)	Y	High Pressure SI 'A'	All Support Systems Modeled
HPSI 'B'	Y	22.4 (Y)	1.028 (Y)	Y	High Pressure SI 'B'	All Support Systems Modeled
LPSI 'A'	Y	4.8 (Y)	1.007 (Y)	Y	Low Pressure SI 'A'	All Support Systems Modeled
LPSI 'B'	Y	4.8 (Y)	1.007 (Y)	Y	Low Pressure SI 'B'	All Support Systems Modeled
RBCCW 'A'	Y	20.3 (Y)	1.034 (Y)	Y	RBCCW 'A'	All Support Systems Modeled

**FORM 5**  
**PRA**  
**RISK SIGNIFICANT SYSTEMS**

Plant: MP2

FRONT-LINE SYSTEM	CDF (Y/N)	RAW (Y/N)	RRW (Y/N)	RISK (Y/N)	PLANT SYSTEMS	SUPPORT SYSTEMS
RBCCW 'B'	Y	20.4 (Y)	1.028 (Y)	Y	RBCCW 'B'	All Support Systems Modeled
120 Volt AC 'A'	Y	12.9 (Y)	1.028 (Y)	Y	120 Volt Vital Regulated 'A'	Control Panels
120 Volt AC 'B'	Y	11.1 (Y)	1.004 (N)	Y	120 Volt Vital Regulated 'B'	Control Panels
Atmospheric Dump Valve 'A'	Y	1.42 (N)	1.011 (Y)	Y	Main Steam System 'A'	Control Panels
Atmospheric Dump Valve	Y	1.42 (N)	1.011 (Y)	Y	Main Steam System 'B'	Control Panels
DC SWGR Room Cooling 'A'	Y	1.43 (N)	1.015 (Y)	Y	Vital SWGR Emergency Cooling 'A'	Chilled Water
DC SWGR Room Cooling 'B'	Y	1.44 (N)	1.015 (Y)	Y	Vital SWGR Emergency Cooling 'B'	Chilled Water
AC Bus 24C	Y	336.1 (Y)	1.041 (Y)	Y	Station Elect. Svc. - 4.16KV	Control Panels
AC Bus 24D	Y	285.6 (Y)	1.031 (Y)	Y	Station Elect. Svc. - 4.16KV	Control Panels
Emergency Boration (Pumps)	Y	1.03 (N)	1.002 (N)	Y	CVCS-Volume Control Boric Acid	All Support Systems Modeled
Emergency Boration (Gravity Feed)	Y	1.08 (N)	1.002 (N)	Y	CVCS-Volume Control Boric Acid	All Support Systems Modeled
#1 SIT	Y	9.6 (Y)	1.007 (Y)	Y	Safety Inj. Tanks	None
#2 SIT	Y	9.6 (Y)	1.007 (Y)	Y	Safety Inj. Tanks	None



# FORM 5

## PRA

### RISK SIGNIFICANT SYSTEMS

Plant: MP2

FRONT-LINE SYSTEM	CDF (Y/N)	RAW (Y/N)	RRW (Y/N)	RISK (Y/N)	PLANT SYSTEMS	SUPPORT SYSTEMS
#3 SIT	Y	9.6 (Y)	1.007 (Y)	Y	Safety Inj. Tanks	None
#4 SIT	Y	9.6 (Y)	1.007 (Y)	Y	Safety Inj. Tanks	None
Shutdown Cooling	Y	1.18 (N)	1.002 (N)	Y	Shutdown Cooling	All Support Systems Modeled
RSST	Y	57.7 (Y)	1.022 (Y)	Y	RSST	All Support Systems Modeled
RWST	Y	295.9 (Y)	1.0006 (N)	Y	Refueling Water Storage Tank	None
Containment Spray 'A'	Y	1.23 (N)	1.007 (Y)	Y	Containment Spray 'A' Shutdown Cooling	All Support Systems Modeled
Containment Spray 'B'	Y	1.19 (N)	1.007 (Y)	Y	Containment Spray 'B' Shutdown Cooling	All Support Systems Modeled
MSIV #1	Y	1.44 (N)	1 (N)	Y	Main Steam System	All Support Systems Modeled
MSIV #2	Y	1.44 (N)	1 (N)	Y	Main Steam System	All Support Systems Modeled
Instrument Air 'A'	N	1 (N)	1 (N)	N	Instrument Air 'A'	None
Instrument Air 'B'	N	1 (N)	1 (N)	N	Instrument Air 'B'	None
ESAS 'A'	N	9.9 (Y)	1.0003 (N)	Y	ESAS 'A'	All Support Systems Modeled
ESAS 'B'	N	11 (Y)	1.0003 (N)	Y	ESAS 'B'	All Support Systems Modeled