

Decision Documentation for Reactive Inspection (Deterministic and Risk Criteria Analyzed)		
PLANT: TMI	EVENT DATE: 11/21/09	EVALUATION DATE: 11/23/09
<p>Brief Description of the Significant Operational Event or Degraded Condition: On Saturday Nov 21, TMI experienced alarms inside the containment due to high airborne contamination levels. TMI is shutdown and replacing their steam generators. The containment was evacuated of approximately 175 workers. Several of the workers were not able to clear the portal monitors due to the contamination levels and have been whole body counted. Some workers have indications of internal contamination below NRC annual limits.</p>		
Y/N	DETERMINISTIC CRITERIA	
N	a. Involved operations that exceeded, or were not included in, the design Remarks:	
N	b. Involved a major deficiency in design, construction, or operation having potential generic safety implications Remarks:	
N	c. Led to a significant loss of integrity of the fuel, primary coolant pressure boundary, or primary containment boundary of a nuclear reactor Remarks:	
N	d. Led to the loss of a safety function or multiple failures in systems used to mitigate an actual event Remarks:	
N	e. Involved possible adverse generic implications Remarks:	
N	f. Involved significant unexpected system interactions Remarks:	
N	g. Involved repetitive failures or events involving safety-related equipment or deficiencies in operations Remarks:	
N	h. Involved questions or concerns pertaining to licensee operational performance Remarks:	

B/4

Remarks:

CONDITIONAL RISK ASSESSMENT	
RISK ANALYSIS BY:	DATE:
Brief Description of the Basis for the Assessment (may include assumptions, calculations, references, peer review, or comparison with licensee's results):	
The estimated conditional core damage probability (CCDP) is _____ and places the risk in the range of a _____ and _____ inspection.	

RESPONSE DECISION	
USING THE ABOVE INFORMATION AND OTHER KEY ELEMENTS OF CONSIDERATION AS APPROPRIATE, DOCUMENT THE RESPONSE DECISION TO THE EVENT OR CONDITION, AND THE BASIS FOR THAT DECISION	
DECISION AND DETAILS OF THE BASIS FOR THE DECISION:	
BRANCH CHIEF REVIEW:	DATE:
DIVISION DIRECTOR REVIEW:	DATE:

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Decision Documentation for Reactive Inspection (Deterministic-only Criteria Analyzed)		
PLANT: TMI	EVENT DATE: 11/21/09	EVALUATION DATE: 11/23/09
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REACTOR SAFETY		
Y/N	IIT Deterministic Criteria	
N	Led to a Site Area Emergency	
	Remarks:	
N	Exceeded a safety limit of the licensee's technical specifications	
	Remarks:	
N	Involved circumstances sufficiently complex, unique, or not well enough understood, or involved safeguards concerns, or involved characteristics the investigation of which would best serve the needs and interests of the Commission	
	Remarks:	
Y/N	SI Deterministic Criteria	
N	Significant failure to implement the emergency preparedness program during an actual event, including the failure to classify, notify, or augment onsite personnel	
	Remarks:	
RADIATION SAFETY		
Y/N	IIT Deterministic Criteria	
N	Led to a significant radiological release (levels of radiation or concentrations of radioactive material in excess of 10 times any applicable limit in the license or 10 times the concentrations specified in 10 CFR Part 20, Appendix B, Table 2, when averaged over a year) of byproduct, source, or special nuclear material to unrestricted areas	
	Remarks:	

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N	<p>Led to a significant occupational exposure or significant exposure to a member of the public. In both cases, "significant" is defined as five times the applicable regulatory limit (except for shallow-dose equivalent to the skin or extremities from discrete radioactive particles)</p> <p>Remarks:</p>
N	<p>Involved the deliberate misuse of byproduct, source, or special nuclear material from its intended or authorized use, which resulted in the exposure of a significant number of individuals</p> <p>Remarks:</p>
N	<p>Involved byproduct, source, or special nuclear material, which may have resulted in a fatality</p> <p>Remarks:</p>
N	<p>Involved circumstances sufficiently complex, unique, or not well enough understood, or involved safeguards concerns, or involved characteristics the investigation of which would best serve the needs and interests of the Commission</p> <p>Remarks:</p>
Y/N	AIT Deterministic Criteria
N	<p>Led to a radiological release of byproduct, source, or special nuclear material to unrestricted areas that resulted in occupational exposure or exposure to a member of the public in excess of the applicable regulatory limit (except for shallow-dose equivalent to the skin or extremities from discrete radioactive particles)</p> <p>Remarks:</p>
N	<p>Involved the deliberate misuse of byproduct, source, or special nuclear material from its intended or authorized use and had the potential to cause an exposure of greater than 5 rem to an individual or 500 mrem to an embryo or fetus</p> <p>Remarks:</p>

N	Involved the failure of radioactive material packaging that resulted in external radiation levels exceeding 10 rads/hr or contamination of the packaging exceeding 1000 times the applicable limits specified in 10 CFR 71.87
	Remarks:
N	Involved the failure of the dam for mill tailings with substantial release of tailings material and solution off site
	Remarks:
Y/N	SI Deterministic Criteria
N	<p>May have led to an exposure in excess of the applicable regulatory limits, other than via the radiological release of byproduct, source, or special nuclear material to the unrestricted area; specifically</p> <ul style="list-style-type: none"> • occupational exposure in excess of the regulatory limits in 10 CFR 20.1201 • exposure to an embryo/fetus in excess of the regulatory limits in 10 CFR 20.1208 • exposure to a member of the public in excess of the regulatory limits in 10 CFR 20.1301
	Remarks:
N	May have led to an unplanned occupational exposure in excess of 40 percent of the applicable regulatory limit (excluding shallow-dose equivalent to the skin or extremities from discrete radioactive particles)
	Remarks:
N	Led to unplanned changes in restricted area dose rates in excess of 20 rem per hour in an area where personnel were present or which is accessible to personnel
	Remarks:
N	Led to unplanned changes in restricted area airborne radioactivity levels in excess of 500 DAC in an area where personnel were present or which is accessible to personnel and where the airborne radioactivity level was not promptly recognized and/or appropriate actions were not taken in a timely manner
	Remarks:

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	<p>Led to an uncontrolled, unplanned, or abnormal release of radioactive material to the unrestricted area</p> <ul style="list-style-type: none"> • for which the extent of the offsite contamination is unknown; or, • that may have resulted in a dose to a member of the public from loss of radioactive material control in excess of 25 mrem (10 CFR 20.1301(e)); or, • that may have resulted in an exposure to a member of the public from effluents in excess of the ALARA guidelines contained in Appendix I to 10 CFR Part 50
	Remarks:
N	Led to a large (typically greater than 100,000 gallons), unplanned release of radioactive liquid inside the restricted area that has the potential for ground-water, or offsite, contamination
	Remarks:
N	Involved the failure of radioactive material packaging that resulted in external radiation levels exceeding 5 times the accessible area dose rate limits specified in 10 CFR Part 71, or 50 times the contamination limits specified in 49 CFR Part 173
	Remarks:
N	Involved an emergency or non-emergency event or situation, related to the health and safety of the public or on-site personnel or protection of the environment, for which a 10 CFR 50.72 report has been submitted that is expected to cause significant, heightened public or government concern
	Remarks:

SAFEGUARDS/SECURITY	
Y/N	IIT Deterministic Criteria
	Involved circumstances sufficiently complex, unique, or not well enough understood, or involved safeguards concerns, or involved characteristics the investigation of which would best serve the needs and interests of the Commission
	Remarks:
	Failure of licensee safety-related equipment or adverse impact on licensee operations as a result of a safeguards initiated event (e.g., tampering).
	Remarks:
	Actual intrusion into the protected area.
	Remarks:
Y/N	AIT Deterministic Criteria
	Involved a significant infraction or repeated instances of safeguards infractions that demonstrate the ineffectiveness of facility security provisions
	Remarks:
	Involved repeated instances of inadequate nuclear material control and accounting provisions to protect against theft or diversions of nuclear material
	Remarks:
	Confirmed tampering event involving safety-related or security-related equipment
	Remarks:
	Substantial failure in the licensee's intrusion detection or package/personnel search procedures which results in a significant vulnerability or compromise of plant safety or security
	Remarks:
Y/N	SI Deterministic Criteria
	Involved inadequate nuclear material control and accounting provisions to protect against theft or diversion, as evidenced by inability to locate an item containing special nuclear material (such as an irradiated rod, rod piece, pellet, or instrument)
	Remarks:

	Involved a significant safeguards infraction that demonstrates the ineffectiveness of facility security provisions
	Remarks:
	Confirmation of lost or stolen weapon
	Remarks:
	Unauthorized, actual non-accidental discharge of a weapon within the protected area
	Remarks:
	Substantial failure of the intrusion detection system (not weather related)
	Remarks:
	Failure to the licensee's package/personnel search procedures which results in contraband or an unauthorized individual being introduced into the protected area
	Remarks:

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