



**ATTACHMENT A**

**GUIDE TO SUBSECTIONS REVISED  
CONSOLIDATED SAFETY ANALYSIS REPORT FOR MORRIS OPERATION**

<u>Title</u>	<u>Previous Revision #</u>	<u>Information Changed</u>		<u>Comment</u>
		<u>Previous</u>	<u>New</u>	
Table of Contents	D10			Revised all pages to include Revision D11
Introduction	D10	1.1	1.1	Added aging management and system environment to basis. Changed 100 years to extended period of time.
Support Systems	D10	1.4	1.4	Deleted gas from utility systems.
Energy Systems	D10	1.4.6	1.4.6	Deleted natural gas.
Residential Use and Population Centers	D9	3.2.4.2	3.2.4.2	Updated population figures to July 2003
Cities Greater than 1000 population within 30 miles	D9	Table 3-1	Table 3-1	Updated population figures.
Industrial, Transportation, and Military Activities	D9	Table 3-3	Table 3-3	Updated distances and added new companies.
Normal & Extreme Precipitation	D9	Table 3-6	Table 3-6	Updated and changed format of table.
Stability Class and Wind Direction	D9	Table 3-8	Table 3-8	Changed table format.
On-Site Well	D10	3.6.2.1	3.6.2.1	Deleted basin makeup water usage amount.
Material Stored	D9	4.1.1	4.1.1	Changed title of section. Added specifics on fuel burn up data. Added specifics on San Onofre fuel bundles. Added specifics on Dresden fuel bundles. Added specifics on corrosion stability and radionuclide transfer in pool water.
Access Control	D9	4.3.6.2.1	4.3.6.2.1	Changed barbed to razor wire.
Low-Level Solid Waste	D10	5.4.2.2	5.4.2.2	Deleted reference to low-level waste compactor.
Doorway Guard	D10	5.4.3.3	5.4.3.3	Deleted specific dimensions of the doorway guard.
Fuel Grapples	D10	5.4.3.4	5.4.3.4	Changed "remove" to "transfer."
Fuel Storage System	D10	5.4.4	5.4.4	Changed "from a cask in the cask unloading pit to fuel baskets" to "between cask and storage baskets the cask unloading pit."
Fuel Integrity in Storage	D10	5.4.4.1	5.4.4.1	Deleted "reasonable and literature" reference to 22.



<u>Title</u>	<u>Previous Revision #</u>	<u>Information Changed Previous</u>	<u>New</u>	<u>Comment</u>
Equipment Description	D10	5.4.4.2	5.4.4.2	Changed location of figure 5-8 and 5-10 in the paragraph.
Heat Transfer from Stored Fuel	D10	5.4.4.3	5.4.4.3	Changed maximum water temperature to 123 and its reference number.
Storage Basin Description	D10	5.5.1	5.5.1	Added reference to longevity in new appendix A-8.
Water Quality and Characteristics	D10	5.5.2.1	5.5.2.1	Changed the water quality added to the basin.
Radioactive Materials in Basin Water	D10	5.5.2.2	5.5.2.2	Deleted maximum concentration to interrupt basin operations.
Safety Evaluation	D10	5.5.3.2	5.5.3.2	Changed the equilibrium temperature reached with cooling off from 183 to 123 degrees.
Utility Systems	D10	5.8	5.8	Deleted the words natural gas.
Water Supply	D10	5.8.1	5.8.1	Changed gas boiler to electric water heater.
Backup Water Supplies	D10	5.8.1.4	5.8.1.4	Changed 30 hours to 50 days.
Site Natural Gas Supply	D10	5.8.3	5.8.3	Deleted information about natural due to removal in 2002.
References	D10	5.10	5.10	Added references 22 & 23.
Irradiated Fuel	D9	7.3.1	7.3.1	Updated current length fuel has been stored.
Fission Product Activity	D9	Table 7-1	Table 7-1	Updated format and added column for 20 years.
Storage Basin Water	D9	7.3.2	7.3.2	Deleted references to cask flush water and received damaged fuel.
Contaminants	D9	7.3.2.2	7.3.2.2	Changed rotation of figure 7-1.
Airborne Radioactive Material Sources	D9	7.3.3	7.3.3	Changed five to four sources. Deleted vented gasses from sources. Updated years of fuel storage experience, nuclides released, and annual basin air sample information.
Facility Design Features	D9	7.4.1	7.4.1	Deleted reference to cask venting and flushing.
Direct Radiation from Fuel in Storage	D9	7.4.2.1	7.4.2.1	Deleted estimated from title. Updated section with direct reading information and deleted estimates.
Radiation Monitor considerations	D9	7.4.5.3	7.4.5.3	Changed location of detectors in figure 7-2. Changed film badges to OSL badges.
Health Physics Program	D9	7.6	7.6	Changed film badges to OSL badges.
Effluent and Environmental Monitoring Program	D9	7.7.1	7.7.1	Added "North" and "(if water in ditch)" to drainage ditch.
Estimated Exposures	D9	7.7.2	7.7.2	Added "an EPA"
Internal Exposure from Inhalation	D9	7.7.2.2	7.7.2.2	Changed estimation based on calculation and specified use of EPA software program.



<u>Title</u>	<u>Previous Revision #</u>	<u>Information Changed</u>		<u>Comment</u>
		<u>Previous</u>	<u>New</u>	
Introduction	D9	8.1	8.1	Added "ship"
Loss of Fuel Basin Cooling	D9	8.2	8.2	Updated time available to provide make-up water to 60 days.
Basin Water Temperature	D9	8.2.1	8.2.1	Updated maximum basin water temperature information.
Fuel Bundle Drop Accident	D9	8.5.1	8.5.1	Added exposures when ventilation system is inoperable
Accident Analysis	D9	8.5.2.1	8.5.2.1	Added exposures when ventilation system is inoperable
Chiller System Leak	D9	8.7	8.7	Reworded sentence
Corporate Organization	D9	9.2	9.2	Changed "GE Industrial Power Systems" to "GE Energy"
References	D10	5.10	5.10	Added references 22 & 23.
Authorized Materials	D10	2.1	10.2.1	Corrected paragraph number
Specification	D10	10.2.1.1	10.2.1.1	Added "No new fuel will be received"
Specification	D10	10.2.1.1	10.2.1.1	Reworded sentence
Basis	D10	10.2.1.2	10.2.1.2	Changed "stored fuel" to "authorized stored fuel inventory"
Basis	D10	10.3.1.2	10.3.1.2	Changed "water shielding" to "water shielding depth". Added "or being transferred from storage to cask"
Surveillance Requirements	D10	10.4	10.4	Changed "Morris Operation" to "GE-MO"
Specification	D10	N/A	10.4.1.1	Added section 10.4.1.1. Specification for effluent air leaving the sand filter.
Basis	D10	N/A	10.4.1.2	Added section 10.4.1.2. Basis for Specification of effluent air leaving sand filter.
Specification	D10	N/A	10.4.2.1	Added section 10.4.2.1. Specification for water in the sanitary holding basin.
Basis	D10	N/A	10.4.2.2	Added section 10.4.2.2. Basis for Specification for water in the sanitary holding basin.
Specification	D10	N/A	10.4.3.1	Added section 10.4.3.1. Specification for testing of licensed sealed sources.
Basis	D10	N/A	10.4.3.2	Added section 10.4.3.2. Basis for Specification for testing of licensed sealed sources.



<u>Title</u>	<u>Previous Revision #</u>	<u>Information Changed</u>		<u>Comment</u>
		<u>Previous</u>	<u>New</u>	
Specification	D10	10.4.4.1	10.4.4.1	Added Table 4-2 Summary requirements system and equipment test calibration
Basis	D10	N/A	10.4.4.2	Added section 10.4.4.2 Basis for test and calibration requirements for area radiation monitors and criticality monitors.
Specification	D10	10.4.5.1	10.4.5.1	Changed indentation of headers. Changed conductivity acceptable analysis from "2.5 uMho/cm (Note: Assures pH of 4.5 to 9.0 equivalent)" to "1.35 uMho/cm (equivalent to 5.5 to 8.0 in d3emineralized water)"
Fuel Storage Basin	D10	10.5.1	10.5.1	Added the sentence "The energy-absorbing pad on the cask set-off shelf shall not be altered without appropriate safety review and documentation in accordance with Section 9.4.4."
Unloading Pit Doorway Guard	D10	N/A	10.5.2.5	Added section 10.5.2.5 Unloading Pit Doorway Guard
Basis	D10	N/A	10.5.2.5	Added section 10.5.2.5.1 Basis for unloading pit doorway guard design.
Organization	D10	10.6.2.1	10.6.2.1	Added reference to description of senior position and responsibilities within the organization described in CSAR 9.2.3
Plans and Procedures – Minimum Requirements	D10	10.6.3.2b	10.6.3.2	Added " at GE-MO per 10 CFR 72.48"
Safety Committee	D10	10.6.4.1	10.6.4.1	Added "and CSAR Section 9.0, Figure 9-2." Also added meeting frequency and Manager – Morris Operation responsibility to establish appropriate procedures for these meetings.
Design Features	D10	10.6.5.4	10.6.5.4	Added "Chapter 9 and 10 CFR 72.48". Changed reference from reference 2 to reference 3.
Logs and Records	D10	10.6.6.1d	10.6.6.1	Added "and 10 CFR 72.48".
References and Notes	D10	10.7	10.7	Added Note 1
Specification	D10	10.8.0.1	10.8.0.1	Added "detailed in specific Compliance and Operability Test Procedures"
Structures, Systems, and Components Important to Safety	D9	11.3	11.3	Added items F thru L.
Performance Objectives	D9	A.7.2.2	A.7.2.2	Deleted entombing on site objective.
Manpower Estimates	D9	A.7.5.1	A.7.5.1	Updated information to 2003.
Shipping and Disposal Costs	D9	A.7.5.2	A.7.5.2	Deleted reference to dispose to a Midwest Compact Commission site.
Total Cost Summary	D9	Table A.7-1	Table A.7-1	Updated predicted costs.



**Morris Operation**  
**Consolidated Safety Analysis Report**

**NEDO-21326D11**

---

Previous	<u>Title</u>	Information Changed		<u>New</u>	<u>Comment</u>
		<u>Revision #</u>	<u>Previous</u>		
Aging Management		D10	A.8	A.8	Updated entire appendix with new data and information.
Fuel Storage System Heat Transfer		D9	A.9	A.9	Updated entire appendix with new data and information.