

**Civilian Radioactive Waste Management System
Management & Operating Contractor**

**Mined Geologic Disposal System
Prioritization of Structures, Systems, and Components (SSCs)**

B00000000-01717-2200-00195 Rev 01

October 31, 1997

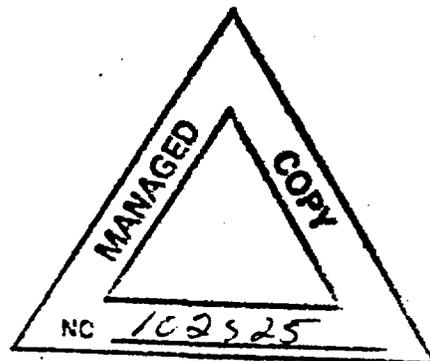
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**Under Contract Number
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Prepared by: 
R. J. Garrett

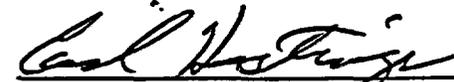
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Design Basis Events

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Date: 29 Oct 97

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Date: 10/29/97

**MGDS SSC PRIORITIZATION
REVISION LOG**

Rev 0 04-Mar-97 Draft document originally prepared under title *MGDS SSC Identification List*
Draft

Rev 01 31-Oct-97 Realigned binning with current conceptual design, including lower-level
SSCs, using draft Rev 00B system architecture.

Added introductory discussion and concurrence/approval signatures.

1.0 PURPOSE

The purpose of this document is to prioritize the Mined Geologic Disposal System (MGDS) Structures, Systems, and Components (SSCs) on the basis of their importance to radiological safety or waste isolation and the availability of applicable licensing/design precedent. The prioritization of SSCs is sometimes referred to as "binning." (Note that, in some cases, management judgement may apply a more conservative bin number on the basis of regulatory significance of an SSC not strictly associated with radiological safety or waste isolation.)

The binning presented in this document was completed as a planning tool to assist in the development of MGDS design. The SSCs included in this document are those currently defined in the conceptual design of the MGDS (described in Reference 4.1 and 4.2); the list of SSCs and their assigned Bin Number will be updated and modified as necessary as the design matures.

2.0 QUALITY ASSURANCE & RECORDS

The SSC prioritization process and this document are not subject to the requirements of the *Quality Assurance Requirements and Description (QARD)* document, as indicated in the evaluation performed in accordance with QAP-2-0, *Conduct of Activities* for 1.2.1.11, Design-Basis Event Definition and Analysis. The prioritization effort and this document constitute planning tools for prioritizing SSC development; this document is not a design input to any SSC design, and does not affect the function or quality of any QA-classified items.

This document uses the MGDS Q-List (Ref. 4.3), and especially analyses used to provide the basis for conclusions in the Q-List (Ref. 4.5) as inputs; it is not intended to take the place of nor does it in any way supersede the Q-List or its associated analyses.

This document was written using guidance provided in draft procedure NAP-SE-002, *SSC Prioritization* (Ref. 4.4). There are no lifetime or nonpermanent QA records generated as a result of using the draft procedure. The completed evaluation document will be submitted to the Record Processing Center in compliance with AP-17.1Q, *Record Source Responsibilities for Inclusionary Records* with a record designation of "QA:N/A".

3.0 METHOD

This document was written according to guidance provided in draft procedure NAP-SE-002, *SSC Prioritization* (Ref. 4.4).

The prioritization (binning) presented in this document uses the following convention:

- Bin 1:** Indicates an SSC that is expected to have no significant radiological safety or waste isolation function or impact;
- Bin 2:** Indicates an SSC expected to have a radiological safety or waste isolation function, or other items of regulatory interest, with significant regulatory precedent indicated;
- Bin 3:** Indicates an SSC expected to have a radiological safety or waste isolation function or impact, or other items of regulatory interest, with no appreciable regulatory precedent.

The expectation of whether an SSC will have a radiological safety or waste isolation function is based primarily on the latest classification of the MGDS repository design (Reference 4.5), which is based on preliminary conclusions in advance of completion of the evaluation of design basis events (DBEs). (Note that, although Reference 4.5 is the basis for an in-progress revision to the MGDS Q-List [Reference 4.3].) Prioritization of those SSCs expected to have radiological safety or waste isolation functions is based on engineering and management judgement, and may also include other considerations beyond radiological safety or waste isolation (i.e., where the availability of regulatory or design precedent may be a factor).

The SSCs included in this document are those currently defined in the conceptual design of the MGDS (as indicated in References 4.1 and 4.2). The binning results are presented by SSC in Attachment I. The SSCs are grouped according to the System Description Document (SDD) number and name. The SSCs included for each SDD are grouped according to the level of detail that has been included in the current MGDS architecture and design. In some instances no SSCs have been assigned to an SDD; in most instances, several levels of detail have been developed for SSCs within an SDD.

As seen in Attachment I, each SDD is assigned a Bin Number. The subordinate SSCs may or may not also be assigned a Bin Number. If not otherwise indicated, a given SSC's Bin Number is representative of the Bin Number for each of its subordinate SSCs (i.e., those more detailed SSCs comprising the given SSC). Similarly, each SDD is assigned a Bin Number corresponding to that of its highest-bin subordinate SSC.

The rationale for the assignment of each Bin Number is presented in Attachment II.

4.0 REFERENCES

- 4.1 Mined Geologic Disposal System Architecture, Rev 00B, May 22, 1997
- 4.2 M&O Interoffice Correspondence LV.RIC.KRH.02/97-011, dated February 21, 1997, Subject: "Distribution of the MGDS SDD Identification List and Draft Summaries." including Enclosures (1) MGDS Description Document, and (2) System Description Document
- 4.3 YMP/90-55Q, *Q-List*, Rev 04, February, 1997
- 4.4 NAP-SE-002, *SSC Prioritization*, Rev 00 (draft), June 16, 1997
- 4.5 B00000000-0717-0200-00134 REV 00, *Classification of the Preliminary MGDS Repository Design*, Rev 00, October 6, 1997

5.0 ATTACHMENTS

- Attachment I MGDS SSC Prioritization (Binning) Summary
- Attachment II Binning Documentation Sheets

ATTACHMENT I

MGDS SSC Prioritization (Binning) Summary

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin
SS01	Subsurface Facility System	Development System	Development Accesses			3	2
			Ramp		Internal Ramps Main Ramp Portal	3	
			Shaft		Shaft Structure Hoist System Shaft Yard Facilities Emergency Hoist System	3	
(SS25)			Development Support System				
			Subsurface Excavation System			3	2
					Shafts Ramps Emplacement Areas Ventilation Raises Miscellaneous Cutouts		
(SS15)			Personnel & Materials Transport			1	
			Muck Handling System			1	1
					Trackless Equipment Service Equipment Specialty Equipment		
			Support Openings			1	
					Cutouts Subsurface Shops/Warehouses Equipment Storage		
		Operations System	Operations Accesses				
			Operations Ramps			3	
					Portal Main Ramp Internal Ramps		
			Operations Shafts			3	
					Shaft Structure Hoist System Shaft Yard Facilities		
			Underground Facility				
			Emplacement Area			3	
					Perimeter Mains Emplacement Drift		
			Support Areas				
					Ventilation Openings Performance Confirmation Area Support Openings	3 3 1	
SS02	Engineered Barrier System	Engineered Barrier System				3	3
SS03	Ground Control System	Accesses				3	3
		Emplacement Area				3	
		Performance Confirmation Openings				3	
		Perimeter Mains				3	
		Support Openings & Cutouts				1	

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin		
SS05	Subsurface	Ventilation Openings				3	3		
		Ventilation System				3			
		Development	Ventilation System					3	
			Access Ventilation System					3	
			Ramp						
			Shaft						
			Emplacement Drift System					3	
			Drift Excavation						
			Raise Excavation						
			Turnout Excavation						
			Miscellaneous Support Cutout Systems					1	
			Charging Stations						
			Fueling Bays						
			Pumping Stations						
			Refuge Chambers						
			Science Cutouts						
			Performance Confirmation System					3	
			Shop/Warehouse Area System					1	
			Ventilation Commodities					2	
			Air Movers						
			Control Devices						
			Dust/Fume Control						
			Heating/Cooling						
			Silencers						
			Ventilation Level System					2	
			Operations	Ventilation System					3
				Access Ventilation System					3
				Ramp					
		Shaft							
		Emplacement Drift System				3			
		Drift							
		Ventilation Raise				1			
		Miscellaneous Support Cutout Systems							
		Charging Stations							
		Pumping Stations							
		Refuge Chambers							
		Science Cutouts							
		Performance Confirmation System				3			
		Ventilation Commodities				2			
		Air Movers							
		Control Devices							
		Dust/Fume Control							
		Heating/Cooling							
		Silencers							
		Ventilation Level System				2			
SS06	Subsurface	Electrical Distribution System				2	2		
		Development	Electrical Distribution					2	
			4160 V Distribution					1	
			440 V Distribution					1	
			Blasting Circuit					1	
			Hoisting Circuit					1	
			Lighting System					1	
			Muck Removal System					1	
			Support System					1	
			TBM System					1	
			Trackless Mining System					1	
			Ventilation System					2	
			Operations	Electrical Distribution					2
				Emergency Response System					2

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin
SS08	Subsurface Compressed Air System		Subsurface Lighting System			1	
			Pumping Distribution			2	
			Support Systems Distribution			1	
			Ventilation System			2	
			Waste Emplacement System			2	
			Waste Transportation Distribution System			2	
			Development Compressed Air System			2	1
			Development Transportation System			1	
			Excavation Systems			1	
			Muck Removal System			1	
			Primary Distribution System			1	
			Refuge Chamber System			1	
			Ventilation Control System			2	
			Warehouse/Shcps System			1	
			Operations Compressed Air System			1	
			Emplacement Drift System			1	
			Primary Distribution System			1	
Refuge Chamber System			1				
Ventilation Control System			2				
Waste Transportation System			1				
SS09	Subsurface Water Distribution System		Development Water Distribution			2	1
			Excavation Takeoff System			1	
			Miscellaneous Excavation System				
			Muck Removal Dust Control System				
			Raise Bore Supply System				
			TBM Supply System				
			Fire Suppression System			2	
			Primary Piping, Valving and Controls			1	
			Warehouse/Shcp Distribution System			1	
			Operations Water Distribution			2	
			Fire Suppression			1	
			Waste Transportation Distribution System			1	
SS10	Subsurface Safety & Monitoring System		Support Area Distribution System			1	
			Development Safety & Monitoring			2	2
			Excavation Systems			1	
			Fire Detection			2	
			Fuel Handling System			1	
			Ground Control Monitoring			2	
			Personnel Safety			1	
			Radiological Safety & Monitoring			2	
			Transportation Safety & Monitoring			1	
			Rail System				
			Trackless Equipment Systems				
			Ventilation Monitoring			2	
			Operations Safety & Monitoring			2	
			Criticality Monitoring			2	
			Fire Detection			2	
Ground Control Monitoring			2				
Personnel Safety			2				
Radiological Safety & Monitoring			2				
Transportation Safety			1				
Ventilation Monitoring			2				
SS14	Performance Confirmation System		Borehole Monitoring System			3	
			Water Table			3	
			Emplacement Drift Monitoring System			3	3

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin
			General Subsurface Performance Confirmation System			3	
			Emplaced Materials Monitoring				
			Hydrologic Monitoring				
			Thermomechanical Monitoring				
			Geochemical/Geomechanical Monitoring				
			Backfill Testing				
			Seal Testing				
SS16	Subsurface Development Transportation System		General Surface Performance Confirmation System			3	1
			Control Devices			1	
			Locomotives			1	
			Rail Subsystems for Personnel & Equipment			1	
			Rolling Stock			1	
SS17	Waste Emplacement System					3	3
			Emplacement rail System			3	
			Rolling Stock				
			Rail, Switches, & Hardware				
			Rail Control System				
			Emplacement Drift Accesses			3	
			Doors/Docking Systems				
			Access Control and Package				
			Transfer Control System				
			Emplacement Maintenance System			3	
			Repair Equipment System				
			Emergency/Recovery Equipment System				
			Drift Inspection/Maintenance System				
SS19 (SS18)	Subsurface Closure & Sealing System					3	3
			Backfill Emplacement System			3	3
			Material Emplacement System				
			Material Segregation, Storage and Blending System				
			Material Transport System				
			Borehole Sealing System			3	
			Material Emplacement System				
			Material Handling System			3	
			Seal System				
			Composite Material Handling System				
			Material Emplacement System				
			Structural Seal Component System				
SS20	Subsurface Water Collection/Removal System					2	1
			Development Water Removal			1	
			Primary Piping and Routing				
			Primary Sump and Pumping Station				
			Secondary Collection Sumps/Pumping				
			Temporary Piping and Routing				
			Operations Water Removal			2	
			Piping and Routing				
			Primary Sump and Pumping Station				
			Secondary Collection Sumps/Pumping				
SS21	Waste Retrieval System					3	3
			Waste Retrieval Equipment System			3	
			Emplacement Drift Remediation Equipment				
			Off-Normal Conditions Equipment				
			Retrieval Gantry				
			Waste Retrieval Transport Equipment System			3	
			Rolling Stock				
SS24	Subsurface Emplacement Transportation System					1	2
			Access Rail System			1	
			Rolling Stock				
			Rail, Switches, & Hardware				

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin
SS26	Subsurface		Rail Control System			1	
			Ramp Access System			1	
			Waste Transportation Maintenance System			1	
			Repair Equipment System			2	2
			Emergency/Recovery Equipment System			2	
			Ramp/Main Inspection & Maintenance				
			Fire Suppression System				
			Development Fire Suppression				
			Access Fire Suppression System				
			Excavation Systems Fire Suppression				
			Mechanical Excavation Systems				
			Raise Bore Systems				
			TBM Systems				
			Fire Detection Systems				
	Mobile Equipment Fire Suppression						
	Muck Removal Fire Suppression						
	Support Openings Fire Suppression						
	Ventilation Equipment Fire Suppression						
	Warehouse/Shop Fire Suppression						
	Operations Fire Suppression						
	Access Fire Suppression System						
	Fire Detection Systems						
	Underground Facility Fire Suppression						
	Ventilation Equipment Fire Suppression						
	Waste Package Handling Equipment Fire Suppression						
SSXX	Subsurface	Central Control System				3	1
		Control Systems				2	
		Development				1	
		Muck Removal				1	
		Transportation				2	
		Ventilation				3	
		Operations				2	
		Facility Structure				2	
		Utilities				2	
						2	
SU01	MGDS Site Layout					2	1
						2	2
SU02	Waste Handling Facility (WHF) System	Communications System				2	
		Fire Alarm System				2	
		Office & Data System				1	
		Phone System				1	
		Public Address/Central Alarm System				2	
		Security System				2	
		Facility Decontamination System				2	
		Facility Monitor & Control System				2	
		LLW Liquid Transfer Systems				2	
		Aqueous LLW Collection System					
		Liquid Chemical LLW Collection System					
		Recycled Water Distribution System					
		Material Accountability System					
		Piped Utility Systems					
		Chilled Water Distribution System (as required)					
		Industrial Air Distribution System					
		Instrument Air Distribution System (as required)					
		Potable Water Distribution System					
		Sewage Collection System					
		Vacuum System (as required)					
Process Supply Systems							
Helium Supply System							

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SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin	
SU04	Radiological		Nitrogen Supply System (as required)			2		
		Security System				2		
		Solid Waste Collection Systems						
			Hazardous Waste System					
			Radiological Waste System					
			Sanitary Waste System					
		Waste Handling Building Foundations & Structures					2	
		Waste Handling Building Architectural Features					2	
		Waste Treatment Facility System					2	2
		Communications Systems					2	
			Fire Alarm Communications System				2	
			Office & Data System				1	
			Phone System				1	
			Public Address/Central Alarm System				2	
			Security System				2	
		Electrical Systems					2	
			Backup Power Distribution System					
			UPS Power System					
			Utility Power Distribution System					
		Facility Decontamination System						2
		Facility Monitor & Control System						2
		Lighting Systems						2
			General Lighting System					1
			Safety/Security Lighting System					2
		Lightning Protection System						1
		Piped Utility Systems						1
			Chilled Water Distribution System					2?
			Industrial Air Distribution System					
			Instrument Air Distribution System (as required)					2?
			Potable Water Distribution System					
			Secondary Cooling Water System					
			Sewage Collection System					
			Vacuum System (as required)					
		Process Supply Systems						1
			Acid Supply System					
			Caustic Supply System					
			Stabilization Agent Supply System					
		Safety Systems						2
			Fire Detection System					
			Fire Suppression System					
	Radiological Monitoring System							
Security System						2		
Solid Waste Collection Systems						2		
	Hazardous Waste System							
	Radiological Waste System							
	Sanitary Waste System							
Waste Treatment Building						2		
Carrier Staging Shed (CSS) System						2		
Carrier Staging Shed						2		
Communications Systems						2		
	Fire Alarm Communications System					2		
	Office & Data System					1		
	Phone System					1		
	Public Address/Central Alarm System					2		
	Security System					2		
Electrical Systems						2		
	Backup Power Distribution System							
	Utility Power Distribution System							
	UPS Power System							
SU05	Carrier Staging Shed (CSS) System					2	2	

Handwritten notes:
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SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin	
		Facility Monitoring & Control System					2	
		Lighting Systems					2	
			General Lighting System				1	
			Safety/Security Lighting System				2	
		Lightning Protection System					1	
		Non-Nuclear HVAC System					1	
		Piped Utility Systems					1	
			Chilled Water Distribution System (as required)					
			Industrial Air Distribution System					
			Instrument Air Distribution System (as required)					
			Potable Water Distribution System					
			Sewage Collection System					
			Vacuum System (as required)					
		Safety Systems					2	
			Fire Detection System					
			Fire Suppression System					
			Radiological Monitoring System					
		Security System					2	
		Solid Waste Collection Systems					2	
			Hazardous Waste System					
			Radiological Waste System					
			Sanitary Waste System					
SU08	Carrier Staging Shed Material Handling System					2	2	
SU09	Cask/Canister Handling System					2	3	
		Assembly Transfer Line Cask Systems					2	
			Cask Cart System					
			Cask Clean & Purge System					
			Decontamination System					
			Empty Cask Preparation System					
			Empty DPC Packaging System					
		Canister Transfer Line Cask Systems					2	
			Cask Cart System					
			Cask Clean & Purge System					
			Cask Hoist System					
			Cask Lid Unbolter System					
			Decontamination System					
			Empty Cask Preparation System					
		Carrier Bay Crane System					2	
SU10	Uncanistered Waste Transfer System					3	3	
		Cask/Canister Handling Systems					2	
			Cask Lid Removal & Installation System					
			Cask/Canister Purge & Fill System					
			DPC Opening System					
			Pool Crane System					
		DC Assembly Transfer Line Systems					2	
			DC Cart System					
			DC Decontamination System					
			DC Inner Lid Weld Inspection System					
			DC Inner Lid Weld System					
			Waste Transfer Port System					
		Pool Systems					2	
			Pool Leak Detection System					
			Pool Waste Removal System					
			Pool Water Supply & Treatment System					
		SFA Dry Transfer Systems					2	
			SFA Dry Transfer Crane System					
			SFA Drying Chamber System					
		SFA Pool Transfer Systems					2	
			SFA Conveyor System					

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin				
SU11	Canistered Waste Transfer System		SFA Pool Lag Storage System			3 2 2	3				
			SFA Pool Transfer Crane System								
			Canister Lag Storage System								
			DC Canister Transfer Line Systems								
			DC Cart System								
			Waste Transfer Port System								
			Large Canister Crane System								
			Small Canister Hoist System								
		SU12	Waste Package (WP) Remediation System							2 2 3 2 3 3 3 3 2 3 3	3
					DC Crane System						
	DC Non-Destructive Examination System										
	DC/Canister Opening System										
	DC Welding System										
	Decontamination System										
	Filler Material Addition System (as required)										
	Sampling System										
SU13	Disposal Container (DC) Handling System				DC Emplacement Preparation System			3 2 2 2 2 2 3 3 3 2	3		
					DC Horizontalizer System						
			DC Transfer Gantry System								
			Final DC Decontamination								
			Transporter Loading System								
			DC Storage and Handling Systems								
			DC Staging System								
			DC Storage Crane System								
			DC Storage Transfer Cart System								
			DC Welding/Inspection Systems								
	DC Inner Lid Weld Inspection System										
	DC Inner Lid Weld System										
	DC Outer Lid Weld Inspection System										
	DC Outer Lid Weld System										
SU16	Carrier/Cask Transport System		Empty DC Receiving System			2 1 1 1 1 1 1 1 1 1	1				
			Carrier/Cask Transportation Systems								
			Carrier/Cask Rail System								
			Carrier/Cask Road System								
			On-Site Prime Mover System								
			Shipment Inspection System								
			Transporter Maintenance Building								
			Transporter Maintenance Systems								
			Battery Charging System								
			Decontamination System								
	Electromechanical Equipment Maintenance										
	Oily Water Separation System										
	Transporter Maintenance Facility System										
	Transporter Service System										
SU17	OffSite Rail and Road System		General Offsite Transportation			1 1 1 1	1				
			Nevada Rail Subsystem								
			Nevada Road Subsystem								
			Transportation Support Depots and Facilities								
SU18	Waste Handling Facility Electrical System		Electrical Power Systems			2 2 2 2 2	2				
			Backup Electrical Power Distribution System								
			Electrical Power Distribution System								
			UPS System								
			Lighting Systems								
	Emergency Lighting System										

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SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin
SU22	Waste Handling Facility (WHF) Ventilation System		General Lighting System			1	2
			In-Cell Lighting System			1	
			Lightning Protection System			1	
			Non-Nuclear HVAC Systems			1	
			Nuclear HVAC Systems			2	
SU24	Radiological Waste Treatment Facility Ventilation System		Primary Confinement System				2
			Secondary Confinement System				
			Tertiary Confinement System				
SU29	Waste Handling Facility Radiological Monitoring System		Non-Nuclear HVAC Systems			1	2
			Nuclear HVAC Systems			2	
SU33	Waste Handling Facility Fire Protection System		Exhaust Stack Monitor System			2	2
			Operations Area Monitor Systems			2	
			Continuous Air Monitors			2	
			General Area Monitors			2	
			Process Monitor System			2	
SU37	Site-Generated Radioactive Waste Handling System		Chemical System (as required)				2
			Deluge System (as required)				
			Sprinkler System				
			Aqueous LLW Processing Systems			2	
SU40	Emergency Response System		Evaporation System				2
			Ion Exchange System				
			Recycle Water System				
			Waste Collection System				
			Chemical LLW Processing Systems			2	
			Packaging System (Chemical LLW Processing)				
			pH Adjustment System				
			Waste Collection System				
			Solid LLW Processing Systems			2	
			Compaction System				
Packaging System							
SU41	Health Safety System		Resin Slurry Dewatering System				1
			Waste Reduction & Disassembly System				
SU42	Site Communications System		Waste Sorting System				2
			Emergency Response System			2	
			Emergency Response System			2	
			Fire Station			1	
			Medical Facility			1	
			Health Monitoring & Records System			1	
			Health Physics Laboratory System			1	
			Instrumentation & Data System			1	
			Occupational Safety & Health			1	
			General Site Communications Systems			2	
			Fire & Emergency Response Communication			2	
			Office & Data System			1	
			Phone System			1	
Public Address & Central Alarm System			2				
Security Communications System			2				
Microwave Systems			1				
Earth Station System							
Portable/Mobile System							

Civilian Radioactive Waste Management System
Management & Operating Contractor

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin			
SU43	Site Water System	Flood Control System				2	2			
		Site Water Systems				2				
		Chilled Water System				1				
		Cooling Water System				1				
		Fire Water Distribution System				2				
		Potable Water System				1				
		Well Water System				1				
		Utility Building System				1				
		SU44	Site Electrical Power System	Site Lighting Systems					2	2
				General Lighting System					1	
Safety/Security System						2				
Standby Power Systems						2				
Standby Power Generator System										
Generator Fuel Supply System										
Standby Power Distribution System										
Substation							1			
Switchgear Building							1			
Utility Power Distribution System							1			
SU45	Site Compressed Air System	Air Compression System				2	1			
		Industrial Air Distribution System				2				
		Instrument Air Distribution System				2				
		SU47	Site Generated Hazardous & Non-Hazardous Waste Disposal System	Hazardous Waste Collection System					1	1
Sanitary Solid Waste Collection System						1				
Sanitary Waste Treatment System						1				
Subsurface Waste Water Collection System						1				
SU48	Security & Safeguards System			Security Badging & Records System				2	2	
		Security Barrier Systems				2				
		Material Access Area Barrier System								
		North Portal Support Area Barrier System								
		Radiological Control Area Barrier System								
		Site Perimeter System								
		Security Facilities					2			
		Station 1								
		Station 2								
		Station 3								
		Security Surveillance Systems					2			
		Automated Surveillance System								
		Patrol System								
Survey Instrument System										
Safeguards Material Control and Accountability					2					
SU49	Surface Environmental Monitoring System	Data Acquisition System				2	2			
		Laboratory Facility System				2				
		Meteorological Monitoring System				1				
		Sample Collection System				2				
		Seismic Monitoring System				2				
		SU50	Administration System	Administration System Facilities					1	1
Administration Building										
Mock-Up Building										
Visitors Center										
Administration Systems							1			
Engineering System										
Office Services and Records System										

**Civilian Radioactive Waste Management System
Management & Operating Contractor**

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin	
SU51	Maintenance & Supply System		Operations Management & Planning Computer Training System			1	1	
			Transportation Dispatch Computer System			1		
			Maintenance & Supply System Facilities					
			Central Shops					
			Central Warehouse					
			DC Receiving Shed					
			Maintenance & Supply Systems				1	
			Empty DC Supply System					
			Equipment Storage & Retrieval System					
			Inventory Planning & Management System					
SU52	Central Command & Control Operations System		Maintenance Planning & Management System					
			Repair System					
			Central Computer System			2	1	
SU53	Offsite Utilities System		Operator Station System			2		
SU54	General Site Transportation System					1	1	
WP01	Uncanistered		Development Transportation System			1		
			General Site Transportation Systems			1		
			Fuel Supply System					
			General Rail System					
			General Road System					
			Vehicle Repair System					
			Motor Pool & Facility Service Station				1	
			SNF Disposal Containers				3	3
			21 PWR Disposal Container, with Absorber Plates				3	
			Associated Filler and Criticality Control Materials Basket					
			Inner Barrier					
			Outer Barrier					
			21 PWR Disposal Container, No Absorber Plates				3	
			Associated Filler and Criticality Control Materials Basket					
Inner Barrier								
Outer Barrier								
12 PWR Disposal Container, no Absorber Plates				3				
Associated Filler and Criticality Control Materials Basket								
Inner Barrier								
Outer Barrier								
12 PWR Disposal Container with Absorber Plates, South Texas Fuel				3				
Associated Filler and Criticality Control Materials Basket								
Inner Barrier								
Outer Barrier								
44 BWR Disposal Container, no Absorber Plates				3				
Associated Filler and Criticality Control Materials Basket								
Inner Barrier								
Outer Barrier								
44 BWR Disposal Container, with Absorber Plates				3				
Associated Filler and Criticality Control Materials Basket								
Inner Barrier								
Outer Barrier								
24 BWR Disposal Container, with thick Absorber Plates				3				
Associated Filler and Criticality Control Materials								

SDD No.	SDD Title	SSC Level 1	SSC Level 2	SSC Level 3	SSC Level 4	SDD/SSC Bin	Prev. SDD Bin
WP02	Canistered SNF Disposal Containers		Basket Inner Barrier Outer Barrier			3 3	3
WP03	High Level Waste Disposal Containers		Boiling Water Reactor Disposal Container Associated Filler and Criticality Control Materials Inner Barrier Outer Barrier			3 3	3
WP04	DOE Waste Forms Disposal Containers		5 DHLW Co-Disposal Disposal Container Canister Support Center Canister Inner Barrier Outer Barrier			3 3	3
WP04	DOE Waste Forms Disposal Containers		5 DHLW Co-Disposal Hanford Disposal Container Canister Support Center Canister Inner Barrier Outer Barrier			3 3	3
WP04	DOE Waste Forms Disposal Containers		Aluminum Based Fuel Disposal Container Disrupted Fuel Disposal Container Intact Oxide Disposal Container Thorium Oxide Disposal Container Uranium Oxide Disposal Container Uranium Metal and Alloy Disposal Container Uranium Carbide Disposal Container Zirconium Hydride Disposal Container			3 3 3 3 3 3 3 3 3	3
WPxx	Navy Fuel Disposal Containers		Inner Barrier Outer Barrier Canister Support			3 3 3	N/A
WPxx	Pu Disposal Container		Inner Barrier Outer Barrier Canister Support			3 3 3	N/A
WPxx	Non-Fuel Components Disposal Containers		Inner Barrier Outer Barrier Canister Support			3 3 3	N/A
WPxx	Container Closure System Development		Welds & Welding Components NDE & NDE Components Coatings			3 3 3	N/A
WPxx	Ex-Container Systems		Waste Package Supports Inverts Drip Shields (if required) Backfill/Packing (if required)			3 3 3 3	N/A

ATTACHMENT II
BINNING DOCUMENTATION SHEETS

SDD Name: Subsurface Facility System	SDD No.: SS01
SSC Names: Development System; Development Accesses (including Ramps and Shafts, and their associated equipment)	
Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The development accesses provides access to the underground and eventually will provide for the emplacement of waste and protect the engineered barrier system. These SSCs include an inclined access ramp, a ventilation shaft, and their associated subsystems.	
Check one:	
Bin 1 no significant radiological safety or waste isolation function or impact expected	
Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>The Development System development accesses (ramp and shafts) are expected to have radiological safety/waste isolation functions. Their general arrangement and physical location in the mountain's geologic barrier will provide long-term waste isolation. There is no appreciable regulatory or licensing precedent indicated within the nuclear industry for and underground repository or underground accesses (such as emplacement areas, ramps, or shafts). Therefore, these SSCs are Bin 3.</u>	

SDD Name: Subsurface Facility System	SDD No.: SS01/SS25
SSC Name: Development Support System; Subsurface Excavation System (including ramps, shafts, emplacement areas, etc., and their associated equipment)	
Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The development support system subsurface excavation system includes shafts, ramps, emplacement areas, ventilation raises, and miscellaneous cutout areas that support the excavation process.	
Check one:	
Bin 1 no significant radiological safety or waste isolation function or impact expected	
Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DSE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>The Development Support System subsurface excavation system will have radiological safety/waste isolation functions once this portion of the repository becomes operational. At that time the ramp, emplacement areas, and shafts will have radiological safety/waste isolation functions. Their general arrangement and physical location in the mountain's geologic barrier will provide long-term waste isolation. There is no appreciable regulatory or licensing precedent indicated within the nuclear industry for subsurface excavations (such as ramps and emplacement areas). Therefore, these SSCs are Bin 3.</u>	

SDD Name: Subsurface Facility System	SDD No.: SS01/SS15
SSC Name: Development Support System; Personnel & Materials Transport (including the muck handling system, trackless equipment, etc.)	
Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The development support system also includes the personnel and materials transport system (SSCs include the muck handling system, trackless equipment, service equipment, and specialty equipment).	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture. Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>The personnel & materials transport system is not expected to have radiological safety/waste isolation functions.</u> <u>This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation) such as the muck handling system, trackless equipment, and service equipment.</u> <hr/> <hr/> <hr/>	

SDD Name: Subsurface Facility System	SDD No.: SS01								
SSC Name: Development Support System; Support Openings (including cutouts, subsurface warehouses/garages, etc.)									
<p>Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The development support system includes the support openings (SSCs include cutouts, subsurface warehouses/shops, and equipment storage).</p>									
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%; padding: 5px;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="padding: 5px;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="padding: 5px;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="padding: 5px;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="padding: 5px;">Other documentation used</td> <td style="padding: 5px;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td style="padding: 5px;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>								
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>								
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The support openings are not expected to have radiological safety/waste isolation functions or impact based on existing design information. The cutouts, subsurface shops/warehouses and equipment storage areas will not be associated with the transport, storage, or emplacement of waste packages even after the development portion of the repository becomes operational.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>									

SDD Name: Subsurface Facility System	SDD No.: SS01
SSC Name: Operations System; Operations Accesses (including Operations Ramps, Operations Shafts, and associated equipment)	
Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The operations access ramps and shafts provide access for the emplacement of waste as well as function as part of the ventilation system.	
Check one:	
Bin 1 no significant radiological safety or waste isolation function or impact expected	
Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>The operations accesses (including ramps and shafts) are expected to have radiological safety/waste isolation functions or impact based on existing design information. Their general arrangement and physical location in the mountain's geologic barrier will provide long-term waste isolation. There is no appreciable regulatory or licensing precedent indicated within the nuclear industry for underground accesses (such as ramps or shafts). Therefore, these SSCs are Bin 3.</u>	

SDD Name: Subsurface Facility System		SDD No.: SS01								
SSC Name: Operations System; Underground Facility; Emplacement Areas (including associated mains and drifts)										
<p>Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The underground facility emplacement areas, including perimeter mains and emplacement drifts, are where the waste packages will physically be located in the repository.</p>										
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p>Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>									
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The underground facility emplacement areas are expected to have radiological safety/waste isolation functions or impact based on existing design information. These are the physical locations within the repository where the waste packages are located. These areas will enhance the isolation characteristics of the waste packages by locating the emplacement drifts away from major faults and above the water table. There is no appreciable regulatory/licensing precedent for these areas in the nuclear industry.</u></p> <p>_____</p> <p>_____</p>										

SDD Name: Subsurface Facility System	SDD No.: SS01								
SSC Name: Operations System; Underground Facility; Support Areas, support openings									
<p>Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The operations system underground facility support areas include the support openings.</p>									
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>								
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>								
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>Although they are part of the subsurface facility system, the Operations System underground facility support area support openings are not expected to have radiological safety/waste isolation functions or impact, based on existing design information. These are non-emplacement areas and will not be associated with the transport, storage, or emplacement of waste packages.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>									

SDD Name: Subsurface Facility System		SDD No.: SS01
SSC Name: Operations System; Underground Facility; Support Areas, ventilation openings, performance confirmation openings		
Brief Description: The Subsurface Facility System encompasses the location, arrangement, size, and spacing of the underground openings. Approximately 5 percent of the emplacement drifts will be completed prior to the start of waste emplacement operations (the Operations System). The remaining 95 percent will be completed while waste is being emplaced in emplacement drifts (the Development System). The operations system underground facility support areas include the ventilation openings and performance confirmation areas.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>The ventilation openings and performance confirmation area, both part of the Operations System underground facility support areas, are expected to have radiological safety/waste isolation functions or impact, based on existing design information. The ventilation openings are part of the subsurface ventilation system, which provides for confinement of radioactive particles in the event of a breach of a waste package in the operations side of the repository. The performance confirmation areas include equipment and alcoves to verify that the natural and engineered barriers are functioning as designed. Although the subsurface ventilation openings/ventilation system and the performance confirmation system/area may have some regulatory/licensing analogs in the nuclear industry, none has been licensed on such a scale as will be required at a repository. Therefore, these SSCs are designated as Bin 3.</u></p>		

SDD Name: Engineered Barrier System		SDD No.: SS02
SSC Name: Engineered Barrier System; all associated SSCs		
Brief Description: The Engineered Barrier System delays the release and transport of radionuclides. It collectively consists of the waste packages, the waste package support hardware, and performance enhancing barriers.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>The Engineered Barrier System will support the key geologic repository mission by containing the waste, limiting radionuclide release to the natural barrier, controlling the external impacts on the engineered system, controlling impacts on the natural system, and providing waste package support and spacing. Therefore, this system will have radiological safety/waste isolation functions or impact, based on existing design information. There is no appreciable regulatory precedent indicated within the nuclear industry for an underground repository engineered barrier system; thus this system is designated as Bin 3.</u></p> <p>_____</p> <p>_____</p>		

SDD Name: Ground Control System	SDD No.: SS03						
SSC Name: Accesses, Emplacement Area, Perimeter Mains, Performance Confirmation Openings, Ventilation Openings							
Brief Description: The ground control system provides for safe construction and operation of the subsurface facility by providing a concrete or steel lining for structural support in the main and emplacement drifts. This system consists of the structures installed within the excavated openings or reinforcement made to the rock surrounding the openings (precast concrete, rock bolts and mesh support, or cast-in-place concrete). Precast concrete is used in 90 percent of the emplacement drifts; cast-in-place concrete linings are planned for the access ramps and main drifts.							
Check one: <input type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
Indicate documentation used: <table style="width: 100%; border: none;"> <tr> <td style="width: 60%; padding: 5px;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="padding: 5px;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="padding: 5px;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="padding: 5px;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="padding: 5px;">Other documentation used</td> <td style="padding: 5px;"><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <u>The ground control system within the accesses, emplacement area, perimeter mains, and performance confirmation openings are expected to have radiological safety/waste isolation functions or impact, based on existing design information. The performance confirmation areas include alcoves that will verify that the natural and engineered barriers are functioning as designed. The ventilation system provides for confinement of radioactive particles in the event of a breach of a waste package in the operations side of the repository. Areas such as the performance confirmation areas will be of regulatory interest since they are associated with repository post-closure activities. There is no appreciable regulatory precedent indicated within the nuclear industry for the licensing of ground support in an underground repository. Therefore, these SSCs are Bin 3.</u>							

SDD Name: Ground Control System		SDD No.: SS03								
SSC Name: Support Openings & Cutouts										
<p>Brief Description: The ground control system provides for safe construction and operation of the subsurface facility by providing a concrete or steel lining for structural support in the main and emplacement drifts. This system consists of the structures installed within the excavated openings or reinforcement made to the rock surrounding the openings (precast concrete, rock bolts and mesh support, or cast-in-place concrete). Support openings and cutouts will maintained by this system to maintain stable underground openings under the range of anticipated conditions. Cast-in-place linings will most probably be used in these areas.</p>										
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>									
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The support openings and cutouts are not expected to have radiological safety/waste isolation functions or impact based on existing design information. Waste packages will not be emplaced or moved through these areas. These areas are constructed according to standard mining operation requirements.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>										

SDD Name: Subsurface Ventilation System		SDD No.: SS05
SSC Name: Development Ventilation System; Access Ventilation System, Emplacement Drift System, Performance Confirmation System		
Brief Description: This system ventilates the underground by providing surface ambient air throughout the subsurface. The system protects personnel against radioactive particles and gasses, and protects the outside environment from radioactive exhaust byproducts. The development ventilation system is separated from the operations side of the repository to prevent the spread of any unlikely radioactive releases from the emplacement area. The development ventilation system services the access ventilation system, the emplacement drift excavation system, and the performance confirmation area ventilation system.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>The areas serviced by Development Ventilation System have radiological safety/waste isolation functions or impacts: the development ventilation system maintains pressure on the excavation side higher than that on the emplacement side to ensure that radioactivity released in the operations area does not leak into the development area. No waste packages are yet emplaced in the development portion of the repository. However, once the development areas become operational, they will be serviced by the operations ventilation system. Although regulatory precedent exists for ventilation systems in a commercial nuclear environment, this type of system has never been implemented or licensed on this scale in this type of applications; therefore, it is designated as Bin 3.</u></p>		

SDD Name: Subsurface Ventilation System		SDD No.: SS05								
SSC Name: Development Ventilation System; Miscellaneous Support Cutout Systems, Shop/Warehouse Area										
<p>Brief Description: This system ventilates the underground by providing surface ambient air throughout the subsurface. The system protects personnel against radioactive particles and gasses, and protects the outside environment from radioactive exhaust byproducts. The development ventilation system is separated from the operations side of the repository to prevent the spread of any unlikely radioactive releases from the emplacement area. The various areas that comprise the support cutout system and shop/warehouse system are all serviced by the development ventilation system.</p>										
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 008</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>									
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The miscellaneous support cutout systems as well as the shop/warehouse area of the subsurface development ventilation system are not expected to have radiological safety/waste isolation functions or impact, based on existing design information. Therefore, the ventilation system that services these areas will have no radiological safety or waste isolation functions.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>										

SDD Name: Subsurface Ventilation System	SDD No.: SS05						
SSC Name: Development Ventilation System; Ventilation Commodities, Ventilation Level System							
Brief Description: This system ventilates the underground by providing surface ambient air throughout the subsurface. The system protects personnel against radioactive particles and gasses, and protects the outside environment from radioactive exhaust byproducts. The development ventilation system is separated from the operations side of the repository to prevent the spread of any unlikely radioactive releases from the emplacement area. The ventilation commodities include the air movers, control devices and other support equipment. The level system maintains the balance between the operations and development side of the repository.							
Check one: <input type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <p><u>The performance confirmation system, ventilation commodities, and the ventilation level system of the Development Ventilation System are expected to have radiological safety/waste isolation functions or impact, especially when these systems become part of the operational portion of the repository. Even as part of the development side, the ventilation commodities and the level system maintain the pressure balance between the operations and development side to ensure that any contamination released on the operations side of the repository is exhausted through emplacement-side high-efficiency filters. There is regulatory precedent indicated within the nuclear industry for these ventilation system components and commodities. Therefore, these SSCs are designated as Bin 2.</u></p>							

SDD Name: Subsurface Ventilation System		SDD No.: SS05
SSC Name: Operations Ventilation System; Access Ventilation System, Emplacement Drift System, Performance Confirmation System		
Brief Description: This system ventilates the underground by providing surface ambient air throughout the subsurface. The system protects personnel against radioactive particles and gasses, and protects the outside environment from radioactive exhaust byproducts. The development ventilation system is separated from the operations side of the repository to prevent the spread of any unlikely radioactive releases from the emplacement area. The operations ventilation system services the access ventilation system, the emplacement drift system, and the operations performance confirmation area ventilation system.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected; with significant regulatory precedent indicated
<input checked="" type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
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Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<p><u>The areas serviced by Operations Ventilation System (including the accesses and emplacement drifts) have radiological safety/waste isolation functions or impacts. The Operations Ventilation System maintains a lower pressure in the emplacement area than that on the excavation side to ensure that radioactivity released in the operations side does not leak into the development area. In addition, the exhaust air from the operations ventilation system is passed through high efficiency filters that are activated in the event that subsurface radioactive contamination is detected. Although regulatory precedent exists for ventilation systems in a commercial nuclear environment, this type of system has never been implemented or licensed on this scale in this type of application; therefore, it is designated as Bin 3.</u></p>		

SDD Name: Subsurface Ventilation System		SDD No.: SS05
SSC Name: Operations Ventilation System; Ventilation Commodities, Ventilation Level System		
<p>Brief Description: This system ventilates the underground by providing surface ambient air throughout the subsurface. The system protects personnel against radioactive particles and gasses, and protects the outside environment from radioactive exhaust byproducts. The development ventilation system is separated from the operations side of the repository to prevent the spread of any unlikely radioactive releases from the emplacement area. The ventilation commodities include the air movers, control devices and other support equipment. The level system maintains the balance between the operations and development side of the repository.</p>		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The Operations Ventilation System ventilation commodities (air movers, control devices, etc.) and the ventilation level system have radiological safety/waste isolation functions or impact. The ventilation commodities and the level system maintain the pressure balance between the operations and development side to ensure that any contamination released on the operations side of the repository is exhausted through high-efficiency filters (located on the operations side exhaust shaft). There is regulatory precedent indicated within the nuclear industry for the equipment included in these SSCs that support this type of ventilation system.</u></p> <p>_____</p> <p>_____</p>		

SDD Name: Subsurface Ventilation System	SDD No.: SS05						
SSC Name: Operations Ventilation System; Miscellaneous Support Cutout Systems							
Brief Description: This system ventilates the underground by providing surface ambient air throughout the subsurface. The system protects personnel against radioactive particles and gasses, and protects the outside environment from radioactive exhaust byproducts. The development ventilation system is separated from the operations side of the repository to prevent the spread of any unlikely radioactive releases from the emplacement area. The various areas that comprise the support cutout systems are all serviced by the operations ventilation system.							
Check one: <input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
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SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <u>The miscellaneous support cutout systems (charging stations, pumping stations, refuge chambers, science cutouts) serviced by the Operations Ventilation System are not expected to have safety/waste isolation function or impact based on existing design information. Therefore, the ventilation system that services these areas will have no radiological safety or waste isolation functions</u> <hr/> <hr/> <hr/>							

SDD Name: Subsurface Electrical Distribution System	SDD No.: SS06
SSC Name: Development Electrical Distribution System; 4160 V Distribution, 440 V Distribution, Blasting Circuit, Hoisting Circuit, Lighting System, Muck Removal System, Support System, TBM System, Trackless Mining System	
Brief Description: The subsurface electrical distribution system distributes electrical power to all subsurface system loads. This system provides power for the emplacement and development operations. On the development side, the development electrical distribution system consists of the 4160 V and 440 V distribution systems and the various systems associated with the development portion of the repository, including the blasting and hoisting circuits, the lighting system, muck removal system, support system, TBM system, and trackless mining system.	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis Revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used:	<u>MGDS SDD Identification List, February 21, 1997</u>
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<p><u>The SSCs that comprise the development electrical distribution portion of the Subsurface Electrical Distribution System, including the 440 V and 4160 V distribution systems, the blasting circuit, the hoisting circuit the lightning system, the muck removal system, support system, TBM system, and trackless mining system, are not expected to have radiological safety or waste isolation functions, based on current repository design. This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation). Note that those development distribution systems that will have a function in the operations side of the repository will be binned in accordance with the appropriate operations distribution system.</u></p>	

SDD Name: Subsurface Electrical Distribution System		SDD No.: SS06
SSC Name: Development Electrical Distribution; Ventilation System Distribution Circuit		
Brief Description: The subsurface electrical distribution system distributes electrical power to all subsurface system loads. This system provides power for the emplacement and development operations. The development electrical distribution system services the electrical distribution system that supplies the development side ventilation system.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<p><u>The development electrical distribution circuit that services the ventilation system associated with the development portion of the subsurface repository is expected to have radiological safety or waste isolation functions, based on current repository design. The development ventilation system maintains pressure on the excavation side higher than that on the emplacement side to ensure that radioactivity released in the operations area does not leak into the development area. In addition, once the development areas become operational, they will be serviced by the operations ventilation system. As such, the exhaust air from this system is passed through high efficiency filters that are activated in the event that subsurface radioactive contamination is detected. There is significant regulatory precedent indicated within the nuclear industry for these types of electrical/ventilation systems, so this SSC is designated Bin 2.</u></p>		

SDD Name: Subsurface Electrical Distribution System		SDD No.: SS06
SSC Name: Operations Electrical Distribution; Subsurface Lighting System, and Support Systems Distribution		
Brief Description: The subsurface electrical distribution system distributes electrical power to all subsurface system loads. This system provides power for the emplacement and development operations. On the emplacement side, the operations electrical distribution system includes the subsurface lighting system, and the support systems distribution circuit.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>These miscellaneous systems of the Subsurface Electrical Distribution System are not expected to have radiological safety/waste isolation functions or impact, based on existing design information. These systems will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u>		
<u> </u>		
<u> </u>		
<u> </u>		

SDD Name: Subsurface Electrical Distribution System		SDD No.: SS06
SSC Name: Operations Electrical Distribution; Emergency Response System, Pumping Distribution System, Ventilation System Circuit, Waste Emplacement System, Waste Transportation Distribution System		
Brief Description: The subsurface electrical distribution system distributes electrical power to all subsurface system loads. This system provides power for the emplacement and development operations. The operations electrical distribution system services the electrical distribution system that supplies the operations side emergency response system, pumping distribution system, ventilation system, waste emplacement system, and waste transportation electrical distribution system (that powers the locomotives that emplace the waste packages).		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
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SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>The electrical systems associated with these emplacement/operations systems are expected to have radiological safety or waste isolation functions, based on current repository design. The operations pumping distribution system supplies power to the pumps that remove water from the repository. The operations ventilation system maintains the operations area at a lower pressure than that in the development area to ensure that contamination released in the operations area does not leak into the development area. The waste transportation distribution and waste emplacement electrical systems service the equipment responsible for these waste package movement operations. There is significant precedent indicated within the nuclear and mining industries for these types of electrical systems, so they are designated Bin 2.</u></p>		

SDD Name: Subsurface Compressed Air System	SDD No.: SS08
SSC Name: Development Compressed Air System; Development Transportation System, Excavation System, Muck Removal System, Primary Distribution System, Refuge Chamber System, Warehouse/Shops System	
Brief Description: This system distributes compressed air throughout the subsurface facility. The system provides air for the development and emplacement operations. The development compressed air system includes compressed air supplied to the development transportation system, the excavation systems, the muck removal system, the primary distribution system, the refuge chamber system, and the warehouse/shops system.	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>This system supplies compressed air in sufficient quantities and pressure to meet the requirements for these SSCs (development transportation system, excavation system, muck removal system, primary distribution system, refuge chamber system, warehouse/shops system) in the development portions/systems of the repository. These SSCs are not expected to have radiological safety/waste isolation functions or impact, based on existing design information. These compressed air systems will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u>	

SDD Name: Subsurface Compressed Air System		SDD No.: SS08
SSC Name: Development Compressed Air System; Ventilation Control System		
Brief Description: This system distributes compressed air throughout the subsurface facility. The system provides air for the development and emplacement operations. The development compressed air system includes compressed air supplied to the development ventilation control system.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/> Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>This system supplies compressed air in sufficient quantities and pressure to meet the requirements for the</u></p> <p><u>ventilation control system on the development portion of the repository. It is expected to have radiological</u></p> <p><u>safety/waste isolation functions or impact, based on existing design information. Even as part of the</u></p> <p><u>development side, the ventilation control system will assist in maintaining the pressure balance between the</u></p> <p><u>operations and development side to ensure that any contamination released on the operations side of the</u></p> <p><u>repository is exhausted through emplacement-side high-efficiency filters. There is regulatory precedent indicated</u></p> <p><u>within the nuclear industry for this ventilation system component. Therefore, this SSC is designated as Bin 2.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>		

SDD Name: Subsurface Compressed Air System		SDD No.: SS08
SSC Name: Operations Compressed Air System; Emplacement Drift System, Primary Distribution System, Refuge Chamber System, Waste Transportation System		
Brief Description: This system distributes compressed air throughout the subsurface facility. The system provides air for the operations/emplacement operations. The operations compressed air system includes compressed air supplied to the emplacement drift system, the primary distribution system, the refuge chamber system, and the waste transportation system.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<u>This system supplies compressed air in sufficient quantities and pressure to meet the requirements for these operations compressed air systems in the repository (the emplacement drift system, the primary distribution system, the refuge chamber system, and the waste transportation system). These SSCs are not expected to have radiological safety/waste isolation functions or impact, based on existing design information. These systems will be comprised of commercial-grade components (i.e., non-nuclear grade: not required for radiological safety or waste isolation).</u>		
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SDD Name: Subsurface Compressed Air System		SDD No.: SS08
SSC Name: Operations Compressed Air System; Ventilation Control System		
Brief Description: This system distributes compressed air throughout the subsurface facility. The system provides air for the operations/emplacment operations. The operations compressed air system includes compressed air supplied to the operations ventilation control system.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>This system supplies compressed air in sufficient quantities and pressure to meet the requirements for the ventilation control system on the operations portion of the repository. It is expected to have radiological safety/waste isolation functions or impact, based on existing design information. The operations ventilation control system will assist in maintaining the pressure balance between the operations and development side to ensure that any contamination released on the operations side of the repository is exhausted through emplacement-side high-efficiency filters. There is regulatory precedent indicated within the nuclear industry for this ventilation system component. Therefore, this SSC is designated as Bin 2.</u>		

SDD Name: Subsurface Water Distribution System		SDD No.: SS09
SSC Name: Development Water Distribution System; Excavation Takeoff System, Primary Piping, Valving and Controls, and Warehouse/Shop Distribution System		
Brief Description: This system distributes water throughout the subsurface facility for use by personnel and in construction. The system provides water for both development and emplacement operations. The system must provide adequate flow rate, pressure, and control of water through the distribution system. The development water distribution system includes water supplied to the excavation takeoff system (muck removal dust control, raise bore supply, TBM supply), the warehouse/shop distribution system, and primary piping, valving and controls.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>This system supplies water to meet the requirements for the development portion of the repository.</u>		
<u>It is not expected to have radiological safety/waste isolation functions or impact, based on existing design information. This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u>		
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<u> </u>		

SDD Name: Subsurface Water Distribution System	SDD No.: SS09
SSC Name: Development Water Distribution System; Fire Suppression System	
Brief Description: This system distributes water throughout the subsurface facility for use by personnel and in construction. The system provides water for both development and emplacement operations. The system must provide adequate flow rate, pressure, and control of water through the distribution system. The development water distribution system includes the fire suppression system.	
Check one:	
Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>This system supplies water to meet the requirements for the development portion of the repository, including the fire suppression system. The development fire suppression system is expected to have radiological safety functions or impact, based on existing design information. There is regulatory precedent for fire suppression systems in the nuclear industry; therefore it is designated as Bin 2.</u>	

SDD Name: Subsurface Water Distribution System		SDD No.: SS09
SSC Name: Operations Water Distribution System; Waste Transportation Distribution System, Support Area Distribution System		
Brief Description: This system distributes water throughout the subsurface facility for use by personnel and in construction. The system provides water for both development and emplacement operations. The system must provide adequate flow rate, pressure, and control of water through the distribution system. The operations water distribution system includes water supplied to the fire suppression system, the waste transportation distribution system, and the support area distribution system.		
Check one:		
<input checked="" type="checkbox"/> Bin 1 .. no significant radiological safety or waste isolation function or impact expected		
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated		
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated		
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>This system supplies water to meet the requirements for the operations portion of the repository. It is not expected to have radiological safety/waste isolation functions or impact, based on existing design information (with the exception of the fire suppression system). This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation)</u>		

SDD Name: Subsurface Water Distribution System		SDD No.: SS09
SSC Name: Operations Water Distribution System; Fire Suppression System		
Brief Description: This system distributes water throughout the subsurface facility for use by personnel and in construction. The system provides water for both development and emplacement operations. The system must provide adequate flow rate, pressure, and control of water through the distribution system. The operations water distribution system includes water supplied to the fire suppression system, the waste transportation distribution system, and the support area distribution system.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<u>This system supplies water to meet the requirements for the operations portion of the repository, including the fire suppression system. The fire suppression system is expected to have radiological safety/waste isolation functions or impact, based on existing design information. However, there is regulatory precedent for this type of system in the nuclear industry; therefore it is designated as Bin 2</u>		

SDD Name: Subsurface Safety and Monitoring System		SDD No.: SS10								
SSC Name: Development Safety and Monitoring; Fire Detection, Ground Control Monitoring, Radiological Safety and Monitoring, and the Ventilation Monitoring Systems										
<p>Brief Description: The Subsurface Safety and Monitoring System monitors critical safety parameters, including monitoring for the presence and location of fires, as well as monitoring the temperature, humidity, and air quality. This system also detects the presence of radiation and radioactive particulates and gases. Included in the development safety and monitoring system are the fire detection system, ground control monitoring, radiological safety and monitoring, and the ventilation monitoring systems.</p>										
<p>Check one:</p> <p><input type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>									
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>These various systems that are included in the Development Safety and Monitoring System are expected to have radiological safety/waste isolation functions or impact, based on existing design information. Although waste packages are not yet emplaced in the development portion of the repository, these systems will monitor parameters with potential significance (e.g., monitor for the presence of radioactivity that may have been released in the operations portion of the repository, fire, etc.). In addition, these systems are also likely to be important to radiological safety when development area becomes operational (ground control, fire detection systems).</u></p> <p><u>Regulatory precedent is indicated for these types of safety and monitoring systems in the nuclear industry.</u></p> <p><u>Therefore, these systems are Bin 2.</u></p>										

SDD Name: Subsurface Safety and Monitoring System		SDD No.: SS10								
SSC Name: Development Safety and Monitoring; Excavation Systems, Fuel Handling System, Personnel Safety System, and the Transportation Safety & Monitoring System										
<p>Brief Description: The Subsurface Safety and Monitoring System monitors critical safety parameters, including monitoring for the presence and location of fires, as well as monitoring the temperature, humidity, and air quality. This system also detects the presence of radiation and radioactive particulates and gases. Included in the development safety and monitoring system are the excavation systems, the fuel handling system, the personnel safety system, and the transportation safety and monitoring system.</p>										
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>									
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>These components of the Development Safety and Monitoring System are not expected to have radiological safety/waste isolation functions or impact, based on existing design information. These systems will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u></p> <p><u>Therefore, these SSCs are designated as Bin 1.</u></p>										

SDD Name: Subsurface Safety and Monitoring System	SDD No.: SS10
SSC Name: Operations Safety and Monitoring; Criticality Monitoring, Fire Detection, Ground Control Monitoring, Personnel Safety, Radiological Safety & Monitoring, Ventilation Monitoring	
Brief Description: The Subsurface Safety and Monitoring System monitors critical safety parameters, including monitoring for the presence and location of fires, as well as monitoring the temperature, humidity, and air quality. This system also detects the presence of radiation and radioactive particulates and gases. Included in the operations safety and monitoring system are the criticality monitoring system, fire detection, the ground control monitoring system, the personnel safety system, the radiological safety and monitoring system, and the ventilation monitoring system.	
Check one:	
Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<p><u>These various systems that are included in the Operations Safety and Monitoring System are expected to have radiological safety/waste isolation functions or impact, based on existing design information. These systems monitor for the presence of radioactivity that may have been released in the operations portion of the repository as well as for other adverse conditions (radiological safety, criticality, fire, personnel safety, ventilation system monitors). In addition, the ground control system monitors the condition of the emplacement drift walls/steelsets.</u></p> <p><u>Regulatory precedent is indicated for these safety and monitoring systems in the nuclear/mining industry.</u></p> <p><u>Therefore, these systems are Bin 2.</u></p>	

SDD Name: Subsurface Safety and Monitoring System	SDD No.: SS10/SS12
SSC Name: Operations Safety and Monitoring; Transportation Safety System	
Brief Description: The Subsurface Safety and Monitoring System monitors critical safety parameters, including monitoring for the presence and location of fires, as well as monitoring the temperature, humidity, and air quality. This system also detects the presence of radiation and radioactive particulates and gases. Included in the operations safety and monitoring system is the transportation safety system.	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>This component of the Operations Safety and Monitoring System is not expected to have radiological safety/waste isolation functions or impact, based on existing design information. This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u>	

SDD Name: Performance Confirmation System		SDD No.: SS14
SSC Name: Borehole Monitoring System, Emplacement Drift Monitoring System, General Subsurface Performance Confirmation System, General Surface Performance Confirmation System		
Brief Description: The performance confirmation system will provide data verifying that the subsurface conditions during construction, waste emplacement operations, and during the caretaker period are as expected and that the natural and engineered barrier systems are functioning as intended. This system will require data acquisition systems, monitoring and test equipment, as well as remotely-controlled equipment used for inspections. The SSCs that comprise these systems include the backfill emplacement performance confirmation system, the borehole sealing system performance confirmation system, the seal performance confirmation system, and the equipment that comprises these systems.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>The various subsystems associated with the Performance Confirmation System are expected to have radiological safety and/or waste isolation functions or impacts. These systems will monitor and analyze changes to the baseline information to verify that the actual subsurface conditions and changes resulting from the construction and operation of the repository are within regulatory limits. There is regulatory precedent indicated within the nuclear industry for these types of monitoring and data acquisition systems in general. However, since specific parameters to be monitored, measurement criteria, and the length of time of measurement is unprecedented, the Performance Confirmation System is assigned a Bin number of 3.</u></p>		

SDD Name: Subsurface Development Transportation System		SDD No.: SS16
SSC Name: Control Devices, Locomotives, Rail Subsystem for Personnel and Equipment, Rolling Stock		
Brief Description: The Subsurface Development Transportation System supports the development of the repository by providing transportation for personnel and material traveling between the surface and subsurface development areas. It consists of the equipment and components required to accomplish these operations, including rolling stock, equipment, and the rail subsystem.		
Check one:		
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected		
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated		
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated		
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The various components of the subsurface development transportation system, including the rolling stock and locomotives, are not expected to have radiological safety/waste isolation functions or impact, based on existing design information. This system will function in the development portion of the repository and involves the movement of men and materials associated with development activities, not the movement of waste packages.</u>		
<u>This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u>		

SDD Name: Waste Emplacement System	SDD No.: SS17						
SSC Name: Emplacement Rail System, Emplacement Drift Accesses, Emplacement Maintenance System							
Brief Description: The Waste Emplacement System transports the loaded and sealed waste packages from the surface waste handling facilities to the area of emplacement. The system operates on the surface between the north portal and the waste handling facilities as well as in the underground accesses and emplacement drifts. The emplacement rail system consists of the rolling stock, rails, switches, hardware, and rail control system. The emplacement drift accesses include the door and docking systems to the emplacement drifts, as well as the access control and transfer control systems, the repair equipment system, emergency/recovery equipment, and drift inspection and maintenance equipment.							
Check one: Bin 1 no significant radiological safety or waste isolation function or impact expected Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
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System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <u>These various components that comprise the Waste Emplacement System are expected to have radiological safety or waste isolation functions and/or impacts. They are associated with the access and emplacement of waste packages into the emplacement drift and with the maintenance of equipment used in the waste emplacement system. There is no appreciable regulatory precedent indicated for these SSCs (access/transfer/transport/emplacement of waste packages in a repository) within the nuclear industry. Therefore, these SSCs are Bin 3.</u> <hr/> <hr/>							

SDD Name: Subsurface Closure & Sealing System		SDD No.: SS19/SS18
SSC Name: Backfill Emplacement System, Borehole Sealing System, Seal System		
Brief Description: The subsurface closure and seal system provides closure barriers and seals for the underground openings, including surface and subsurface boreholes. The system includes the use of seals and backfill (and associated equipment) to control fluid and gas flow into and out of the engineered barrier and to limit human intrusion. All nonpermanent equipment will be removed from the subsurface facility; backfill will be placed in the main drifts, shafts, and ramps, as required; and seals will be installed in all openings to the surface, including shafts, ramps and any boreholes that have been drilled to the repository level.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input checked="" type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs associated with the Subsurface Closure and Sealing System are expected to have radiological safety and/or waste isolation functions or impacts, with no regulatory precedent indicated within the nuclear industry for such a system. Therefore, this system is Bin 3.</u>		

SDD Name: Subsurface Water Collection/Removal System		SDD No.: SS20						
SSC Name: Development Water Removal								
<p>Brief Description: The subsurface water collection/removal system removes water resulting from construction activities and unexpected events that result in excess water in subsurface openings. This system also treats the water (if necessary) in accordance with environmental standards before the water is disposed of on, or near, the site. This system must possess adequate capacity to reduce water depth in the subsurface openings to a minimum level in a timely manner, both on the development and operations sides of the repository.</p>								
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p>Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>								
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>							
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>							
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The various SSCs that comprise this system on the development side of the repository are not expected to have radiological safety/waste isolation functions or impact, based on existing design information (and the fact that there are no waste packages stored on the development portion of the repository). Any QA controls on water removal from the development side of the repository are expected to be programmatic/administrative in nature. This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation). Therefore, this system is designated as Bin 1. Note that those systems that will have a function in the operations side of the repository will be binned in accordance with the appropriate operations system.</u></p>								

SDD Name: Subsurface Water Collection/Removal System	SDD No.: SS20						
SSC Name: Operations Water Removal							
<p>Brief Description: The subsurface water collection/removal system removes water resulting from construction activities and unexpected events that result in excess water in subsurface openings. This system also treats the water (if necessary) in accordance with environmental standards before the water is disposed of on, or near, the site. This system must possess adequate capacity to reduce water depth in the subsurface openings to a minimum level in a timely manner.</p>							
<p>Check one:</p> <p><input type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>							
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The various SSCs that comprise this system on the operations side of the repository are expected to have radiological safety/waste isolation functions or impact, based on existing design information. Since waste packages will be stored on the development portion of the repository, the equipment that comprises this system will function to provide for radiological safety. However, since there is regulatory precedent for this type of equipment in the nuclear/mining industry, this system is designated as Bin 2.</u></p> <p>_____</p> <p>_____</p>							

SDD Name: Waste Retrieval System		SDD No.: SS21								
SSC Name: Waste Retrieval Equipment System, Waste Retrieval Transport Equipment System										
<p>Brief Description: The waste retrieval system removes some or all of the waste packages from the emplacement drifts and transports them to the surface for monitoring and performance confirmation activities. This system includes any special equipment necessary to enable retrieval operations to occur in the underground, such as equipment used for drift remediation, removal of obstructions, preparation of the waste package for transport (such as a retrieval gantry), and transportation of the waste package to the surface (including rolling stock).</p>										
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p>Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
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SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The various components that comprise these systems (waste retrieval equipment and transport equipment systems) are expected to have radiological safety or waste isolation functions and/or impacts. They are associated with the retrieval and transport of waste packages from the emplacement drifts. There is no appreciable regulatory precedent indicated for these SSCs (drift remediation/retrieval/transport of waste packages from a repository) within the nuclear industry. Therefore, these SSCs are Bin 3.</u></p> <p>_____</p> <p>_____</p>										

SDD Name: Subsurface Emplacement Transportation System		SDD No.: SS24'
SSC Name: Access Rail System, Ramp Access System, Waste Transportation Maintenance System		
Brief Description: The subsurface emplacement transportation system supports the operation of the repository by providing transportation for personnel and material traveling between the surface and subsurface areas on the emplacement side of the repository. However, this system only includes all non-waste related transport equipment (transport of waste is covered by the Waste Emplacement System).		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 008</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<p><u>The SSCs associated with the subsurface emplacement transportation system, including rolling stock, doors and access controls, and maintenance/repair equipment are not expected to have radiological safety and/or waste isolation functions or impacts, based on existing design information. This system is not associated with the transport of waste or waste packages, only the transport of non-waste related transport. Therefore, the equipment associated with this system should be commercial grade (non-nuclear, not important to radiological safety or waste isolation), and these SSCs are designated as Bin 1.</u></p>		

SDD Name: Subsurface Fire Suppression System	SDD No.: SS26
SSC Name: Development Fire Suppression, Operations Fire Suppression	
Brief Description: The subsurface fire suppression system provides capability to suppress fires throughout the emplacement and development sides of the repository, wherever there is non-mobile operating equipment (mobile operating equipment is equipped with fire suppression systems). The types of equipment that comprises the operations and development fire suppression systems are compatible with the types of fire hazards expected to be present in these locations; these systems have the capacity to suppress those fires. Equipment associated with both systems includes fire detection systems, ventilation equipment fire suppression systems, and access fire suppression systems. A waste package handling equipment fire suppression system is specific to the operations system; a mobile equipment suppression system, muck removal suppression system, warehouse/shop suppression system; and excavation suppression system are specific to the development fire suppression system.	
Check one:	
Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>These SSCs associated with the Subsurface Fire Suppression System, including suppression equipment for, and specific to, the operations side of the repository are expected to have radiological safety and/or waste isolation functions or impacts. Regulatory precedent is indicated within the nuclear industry for this type of fire suppression system. Therefore, this system is designated as Bin 2.</u>	

SDD Name: Subsurface Central Control System		SDD No.: SSXX
SSC Name: Control Systems; Development Control Systems; Muck Removal, Transportation		
Brief Description: The subsurface central control system performs the function of controlling facilities, utilities, and various underground systems. On the development side of the repository, these system controls include muck removal and transportation.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs associated with the development control systems portion of the Subsurface Central Control System,</u> <u>including the muck removal system and transportation system, have no significant radiological safety</u> <u>and/or waste isolation functions or impacts, based on existing design information. The equipment associated with</u> <u>these control systems will be commercial grade, with no radiological or waste isolation functions.</u>		

SDD Name: Subsurface Central Control System		SDD No.: SSXX
SSC Name: Control Systems; Development Control Systems; Ventilation		
Brief Description: The subsurface central control system performs the function of controlling facilities, utilities, and various underground systems. On the development side of the repository, this system includes controls for the ventilation system.		
Check one:		
Bin 1 no significant radiological safety or waste isolation function or impact expected		
<input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated		
Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated		
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>This SSC associated with the development control systems portion of the Subsurface Central Control System, (the ventilation system); is expected to have radiological safety/waste isolation functions or impact, based on existing design information. Even as part of the development side, the ventilation control system will assist in maintaining the pressure balance between the operations and development side to ensure that any contamination released on the operations side of the repository is exhausted through emplacement-side high-efficiency filters.</u>		
<u>There is regulatory precedent indicated within the nuclear industry for this ventilation system component.</u>		
<u>Therefore, this SSC is designated as Bin 2.</u>		

SDD Name: Subsurface Central Control System		SDD No.: SSXX
SSC Name: Control Systems; Operations Control System		
Brief Description: The subsurface central control system performs the function of controlling facilities, utilities, and various underground systems. On the operations side of the repository, this system it controls operations associated with waste emplacement.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input checked="" type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs associated with the operations systems are expected to have radiological safety and/or waste isolation functions or impacts, based on existing design information. Although regulatory precedent may exist for this type of control system in the nuclear industry (equipment used to control facilities and operations involving movement of spent fuel canisters, spent fuel assemblies, etc.) this type of system has never been implemented or licensed on this scale in this type of applications, it is designated as Bin 3.</u>		

SDD Name: Subsurface Central Control System	SDD No.: SSXX						
SSC Name: Facility Structure, Utilities							
Brief Description: The subsurface central control system performs the function of controlling facilities, utilities, and various underground systems. On the operations side of the repository, this system it controls operations associated with waste emplacement; on the development side, this system controls the operations associated with muck removal, transportation, and ventilation. A facility structure and required utilities are also associated with this system.							
Check one: <input type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
Indicate documentation used: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <u>The facility structure and utilities associated with the Subsurface Central Control System will have radiological safety and/or waste isolation functions, implications, or impacts, based on existing design information. Regulatory precedent exists for these types of facilities and utilities in the nuclear industry (facilities that house equipment used to control facilities and operations involving the movement of spent fuel canisters, spent fuel assemblies, etc.). Therefore, these SSCs are designated as Bin 2.</u> <hr/> <hr/>							

SDD Name: MGDS Site Layout	SDD No.: SU01						
SSC Name: MGDS Site Layout							
<p>Brief Description: The Mined Geologic Disposal System Site layout encompasses the topography and civil engineering required to support the arrangement of the surface repository facilities and systems for safe and efficient operations. It supports surface and subsurface operations and the required facility and transportation arrangements. The system layout is designed to meet siting criteria and support long term waste isolation objectives.</p>							
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>							
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft) </td> <td style="width: 50%; vertical-align: top;"> <u>Mined Geologic Disposal System Architecture, Rev 008</u> </td> </tr> <tr> <td style="vertical-align: top;"> SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft) </td> <td style="vertical-align: top;"> <u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u> </td> </tr> <tr> <td style="vertical-align: top;"> Other documentation used </td> <td style="vertical-align: top;"> <u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u> </td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>						
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The MGDS site layout has radiological safety and waste isolation implications, based on existing design and siting information. While the siting of a geologic repository is unprecedented, general siting criteria are not likely to affect specifics of site layout considerations, especially in instances where there is precedent in the commercial nuclear field. Therefore, the site layout is designated as Bin 2.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>							

SDD Name: Waste Handling Facility (WHF) System		SDD No.: SU02
SSC Name: Communications System (Fire Alarm System, Public Address/Central Alarm System, Security System), Facility Decontamination System, Facility Monitor and Control System, Low Level Waste (LLW) Liquid Transfer Systems, Material Accountability System, Security System, Solid Waste Collection Systems, WHF Foundations and Structures, WHF Architectural Features		
Brief Description: The Waste Handling Facility (WHF) will provide the structures, systems, and components that will support the waste packaging operations. This facility will provide a controlled environment for the dry and pool-handling operations and serve as a contamination structure to confine contamination and provide radiological protection. Facilities associated with the facility/structure, waste handling, rad materials, and decontamination include the facility communications system, the decontamination system, facility monitor and control system, LLW liquid transfer systems, material accountability system, solid waste collection systems, WHF foundations and structures, the security system, and WHF architectural features.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>These SSCs identified as having functions associated with the facility/structure, waste handling, radiological materials, security of the facility and radiological materials, communications (fire alarm system, central alarm system/public address, security system) and decontamination are expected to have radiological safety or waste isolation functions or impacts. However, there are regulatory precedents already indicated within the nuclear industry for these SSCs or types of SSCs, especially at spent fuel handling facilities at commercial nuclear power plants. For this reason, these SSCs are designated as Bin 2.</u>		

SDD Name: Waste Handling Facility (WHF) System		SDD No.: SU02
SSC Name: Communications System (Office and Data System, Phone System), Piped Utility Systems, Process Supply Systems		
Brief Description: The Waste Handling Facility (WHF) will provide the structures, systems, and components that will support the waste packaging operations. This facility will provide a controlled environment for the dry and pool-handling operations and serve as a contamination structure to confine contamination and provide radiological protection. Facilities associated with the non-rad systems at the WHF include the communications system (office and data system, phone system), the piped utility systems (chilled water, sewage, instrument air, industrial air, vacuum system, etc.) and the process supply systems (helium and nitrogen supply).		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>These SSCs associated with the Waste Handling Facility System/Building have no significant radiological safety or waste isolation functions or impacts, based on existing design information. These systems will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u>		
<u>Therefore, these SSCs are Bin 1.</u>		

SDD Name: Radiological Waste Treatment Facility System		SDD No.: SU04
SSC Name: Communications System (Fire Alarm Communications, Public Address/Central Alarm System, Security System), Electrical Systems, Facility Decontamination System, Facility Monitor & Control System, Lighting Systems (Safety/Security Lighting), Safety Systems, Security System, Solid Waste Collection Systems, Waste Treatment Building		
Brief Description: The Radiological Waste Treatment Facility System structures and embedded subsystems support the collection and disposal of site-generated low-level radiological waste. The primary function of the facility is to confine contaminants and provide radiological protection to personnel; however, the facility also provides decontamination systems for the safe removal of contaminated equipment and surfaces. Facilities associated with this system that have radiological safety impacts include the communications system (fire alarm communications, security system, central alarm system), the electrical system (UPS power, backup power, etc.), the facility decontamination system, facility-monitor and control systems, the lighting system (safety/security lighting), the security system, safety systems (rad monitoring, fire detection/suppression), solid waste collection systems (rad waste, hazardous waste, sanitary waste systems), and the waste treatment building.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>These SSCs (identified as having functions associated with decontamination, security systems, safety systems including radiological monitoring, solid waste collection including radiological waste, and waste treatment) are expected to have radiological safety or waste isolation functions or impacts. However, there are significant regulatory precedents already indicated within the nuclear industry for these SSCs or types of SSCs, especially at spent fuel handling facilities at commercial nuclear power plants. For this reason these SSCs are Bin 2.</u>		

SDD Name: Radiological Waste Treatment Facility System		SDD No.: SU04
SSC Name: Communications Systems (Office and Data Systems, Phone System), Lighting Systems (General Lighting), Lightning Protection System, Piped Utility Systems, Process Supply Systems		
Brief Description: The Radiological Waste Treatment Facility System structures and embedded subsystems support the collection and disposal of site-generated low-level radiological waste. The primary function of the facility is to confine contaminants and provide radiological protection to personnel; however, the facility also provides decontamination systems for the safe removal of contaminated equipment and surfaces. Facilities associated with the non-rad systems at the Radiological Waste Treatment Facility include components of the communications system (phone system, office and data system), components of the lighting systems (general lighting), the lightning protection system, the piped utility systems (chilled water, sewage, instrument air, industrial air, vacuum system, etc.), and the process supply systems (acid, caustic).		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>These SSCs associated with the Radiological Waste Treatment Facility System/Building have no significant radiological safety waste isolation functions or impacts, based on existing design information. These systems will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation). Therefore, these SSCs are Bin 1.</u>		

SDD Name: Carrier Staging Shed (CSS) System		SDD No.: SU05
SSC Name: Carrier Staging Shed, Communications Systems (Fire Alarm Communications, Public Address/Central Alarm, Security Systems), Electrical Systems, Facility Monitoring and Control System, Lighting Systems (Safety/Security Lighting), Safety Systems, Security System, Solid Waste Collection Systems		
Brief Description: The Carrier Staging Shed (CSS) System facilitates the preparation of a waste transportation cask for entering the waste handling facilities or for leaving the repository. The system houses the equipment and support systems required for receipt/dispatch of transportation casks, the removal/installation of personnel barriers and impact limiters, the inspection of transportation casks, and the staging of carriers awaiting transfer to other repository facilities or off-site. Facilities associated with this system that have radiological impacts include the carrier staging shed building/facility, the communications systems (fire alarm communications, central alarm system, security system), the electrical system (UPS power, backup power, etc.), facility monitor and control systems, lighting systems (safety/security lighting), security system, safety systems (rad monitoring, fire detection/suppression), and solid waste collection systems (rad waste, hazardous waste, sanitary waste systems).		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>These SSCs at the Carrier Staging Shed (identified as having functions associated with safety, security, facility monitoring, and radiological waste collection) are expected to have radiological safety or waste isolation functions or impacts. However, there are regulatory precedents already indicated within the nuclear industry for these SSCs or types of SSCs, especially at spent fuel handling facilities at commercial nuclear power plants. For this reason these SSCs are Bin 2.</u>		

SDD Name: Carrier Staging Shed (CSS) System		SDD No.: SU05
SSC Name: Communications Systems (Office and Data System, Phone System), Lighting Systems (General Lighting), Lightning Protection System, Non-Nuclear HVAC System, Piped Utility Systems		
Brief Description: The Carrier Staging Shed (CSS) System facilitates the preparation of a waste transportation cask for entering the waste handling facilities or for leaving the repository. The system houses the equipment and support systems required for receipt/dispatch of transportation casks, the removal/installation of personnel barriers and impact limiters, the inspection of transportation casks, and the staging of carriers awaiting transfer to other repository facilities or off-site. Facilities associated with the non-rad systems at the Carrier Staging Shed System include the parts of the communications system (phone system, office and data system), parts of the lighting systems (general lighting), the lightning protection system, the piped utility systems (chilled water, sewage, instrument air, industrial air, vacuum system, etc.), and the non-nuclear HVAC system.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u>
		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<u>These SSCs associated with the Carrier Staging Shed System/Building have no significant radiological safety waste isolation functions or impacts, based on existing design information. These systems will be comprised of commercial-grade components (i.e., non-nuclear grade: not required for radiological safety or waste isolation).</u>		
<u>Therefore, these SSCs are Bin 1.</u>		

SDD Name: Carrier Staging Shed Materials Handling System	SDD No.: SU08								
SSC Name: Carrier Staging Shed Materials Handling System									
<p>Brief Description: The Carrier Staging Shed Materials Handling System is located within the Carrier Staging Shed structure. The primary function of this system (before the cask enters the WHF) is to remove personnel barriers from the carriers, perform a rad survey to measure for possible contamination on the transportation cask, decontaminate, if necessary, remove/retract impact limiters, and stage the carrier until transfer to the WHF. Before a cask exits the repository this system is responsible for the reinstallation of impact limiters, reinstallation of personnel barriers, and the staging of the carrier prior to movement to the truck/rail area.</p>									
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>								
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>								
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with the Carrier Staging Shed Material Handling System may have radiological safety or waste isolation functions or impacts based on their intended function. However, there is regulatory precedent already indicated within the nuclear industry for this type of system, primarily at spent fuel handling facilities at commercial nuclear utilities. Therefore, these SSCs are designated as Bin 2.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>									

SDD Name: Cask/Canister Handling System		SDD No.: SU09								
SSC Name: Assembly Transfer Line Cask Systems, Canister Transfer Line Cask Systems, Carrier Bay Crane System										
<p>Brief Description: The Cask/Canister Handling System performs the functions required to prepare shipping casks and canisters for waste removal, empty shipping canisters for re-shipping, and empty dual purpose canisters for disposal. This system is located in the Waste Handling Facility. The system includes multiple handling stations. Incoming casks are unloaded from the carrier, inspected, lids are removed, and the casks are transported to the Waste Transfer System. Dual purpose canisters are cut open and transferred to the Uncanistered Waste Transfer System. The SSCs associated with this system include the assembly transfer line cask system (including cask cart system, cask clean/purge system, decon system, empty cask prep system, empty dual purpose canister packaging system); the canister transfer line cask system (including cask cart system, clean/purge system, hoist system, lid unbolter system, decon system, and empty cask prep system); and the carrier bay crane system.</p>										
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01-</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01-</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>									
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01-</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with the Cask/Canister Handling System (as grouped in the assembly transfer line and canister transfer line cask systems and the carrier bay crane system) are expected to have radiological safety or waste isolation functions or impacts based on their intended function. There is regulatory precedent already indicated within the nuclear industry for this type of system, primarily at spent fuel handling facilities at commercial nuclear utilities; therefore this system is designated as Bin 2.</u></p>										

SDD Name: Uncanistered Waste Transfer System		SDD No.: SU10
SSC Name: Cask/Canister Handling Systems, DC Assembly Transfer Line Systems, Pool Systems, SFA Dry Transfer Systems, SFA Pool Transfer Systems		
Brief Description: The Uncanistered Waste Transfer System removes spent fuel assemblies (SFAs) from the shipping containers or from lag storage, and loads the assemblies into Disposal Containers (DC) or lag storage. This system also provides for the positioning of containers at the unloading station, the installation of contamination barriers, shipment inspection, and for the removal of empty container and low level waste. The SSCs associated with this system include the Cask/Canister Handling Systems, the DC Assembly Transfer Line Systems, the Pool Systems, the SFA Dry Transfer Systems, and the SFA-Pool Transfer Systems.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated (individual components)
<input checked="" type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated (system as a whole)
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs associated with the Uncanistered Waste Transfer System (as grouped in the cask/canister handling system, the DC assembly transfer line systems, the pool systems, and the SFA dry and pool transfer systems) are expected to have radiological safety or waste isolation functions or impacts based on their intended function.</u>		
<u>There is regulatory precedent already indicated within the nuclear industry for this type of system, primarily at spent fuel handling facilities at commercial nuclear utilities. However, since this type of system has never been licensed for a facility performing these activities on such a large scale, as a whole, the Uncanistered Waste Transfer System is assigned a Bin number of 3.</u>		

SDD Name: Canistered Waste Transfer System		SDD No.: SU11						
SSC Name: Canister Lag Storage, DC Canister Transfer Line Systems, Large Canister Crane System, Small Canister Hoist System								
<p>Brief Description: The Canistered Waste Transfer System removes canistered waste from transportation casks and loads the canister into Disposal Canisters (DCs). The system provides direct transfer to the DC or moves the canistered waste to a temporary holding area. The system is also required to position containers at the unloading station, inspect the shipment, and provide personnel radiological protection during the transfer and temporary storage of the canistered waste. The SSCs associated with this system include the Canister Lag Storage System, the DC Canister Transfer Line Systems (including DC cart system and waste transfer port system), the large canister crane system, and the small canister hoist system.</p>								
<p>Check one:</p> <p><input type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated (individual components)</p> <p><input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated (system as a whole)</p>								
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 008</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>							
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>							
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>							
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with the Canistered Waste Transfer System (as grouped in the canister lag storage system, the DC canister transfer line systems, the large canister crane, and small canister hoist systems) are expected to have radiological safety or waste isolation functions or impacts based on their intended function.</u></p> <p><u>There is regulatory precedent already indicated within the nuclear industry for this type of system, primarily at spent fuel handling facilities at commercial nuclear utilities. However, since this type of system has never been licensed for a facility performing these activities on such a large scale, as a whole, the Canistered Waste Transfer System is assigned a Bin number of 3.</u></p>								

SDD Name: Waste Package (WP) Remediation System	SDD No.: SU12								
SSC Name: Disposal Container (DC) Non-Destructive Examination System, DC/Canister Opening System, DC Welding System, Filler Material Addition System, Sampling System									
<p>Brief Description: The Waste Package (WP) Remediation System functions to unseal defective waste packages for inspection and/or subsequent repackaging within the Waste Handling Building. Destructive and non-destructive techniques are used to examine the DC or waste package. The system also prepares the DCs for testing as part of the performance confirmation process. The system contains radionuclides and prevents criticality during the handling of the breached DCs or waste packages. Systems associated with this SDD include the DC non-destructive examination system, DC/canister opening system, the DC welding system, the filler material addition system, and the sampling system.</p>									
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p>Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>								
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>								
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>Several of the SSCs associated with the Waste Package Remediation System (including the DC opening/welding/testing/filler/sampling systems) are expected to have radiological safety or waste isolation functions or impacts based on their intended function. However, there is no regulatory precedent indicated within the nuclear industry for this type of system. Therefore, these SSCs are assigned a Bin number of 3.</u></p> <p>_____</p> <p>_____</p>									

SDD Name: Waste Package (WP) Remediation System		SDD No.: SU12						
SSC Name: Disposal Container (DC) Crane System, Decontamination System								
<p>Brief Description: The Waste Package (WP) Remediation System functions to unseal defective waste packages for inspection and/or subsequent repackaging within the Waste Handling Building. Destructive and non-destructive techniques are used to examine the DC or waste package. The system also prepares the DCs for testing as part of the performance confirmation process. The system contains radionuclides and prevents criticality during the handling of the breached DCs or waste packages.</p>								
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>								
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>							
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>							
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>							
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>These SSCs (crane systems and the decontamination system) are expected to have radiological safety or waste isolation functions or impacts based on their intended function. However, there is regulatory precedent already indicated within the nuclear industry for these types of systems, primarily at spent fuel handling facilities at commercial nuclear utilities. Therefore, they are designated as Bin 2</u></p> <p>_____</p> <p>_____</p>								

SDD Name: Disposal Container (DC) Handling System	SDD No.: SU13								
SSC Name: DC Emplacement Preparation Systems, DC Storage and Handling Systems, Empty DC Receiving System									
<p>Brief Description: The Disposal Container Handling System functions to receive empty and retrieved DCs, preparing filled DCs for disposal, and supporting corrective actions required on prepared and retrieved canisters. This system is located in the Waste Handling Facility. Empty DCs are selected from inventory, inspected, and prepared for waste transfer. The DCs are loaded by the Uncanistered or Canistered Waste Transfer System, following which the DC Handling System prepares the container for closure. DC closure includes welding the inner/outer lids, decontamination, and inspection. The DCs are then loaded on the subsurface transporter or stored for later emplacement. This system includes the DC emplacement prep system, the DC storage/handling systems, and the empty DC receiving system.</p>									
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>								
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>								
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>These SSCs associated with the Disposal Container Handling System (as grouped into the DC emplacement/</u> <u>preparation system, storage and handling system, and empty DC receiving system) are expected to have</u> <u>radiological safety or waste isolation functions or impacts based on their intended function. However, there is</u> <u>regulatory precedent already indicated within the nuclear industry for these systems, primarily at spent fuel</u> <u>handling facilities at commercial nuclear utilities</u></p>									

SDD Name: Disposal Container (DC) Handling System	SDD No.: SU13						
SSC Name: DC Welding/Inspection Systems							
<p>Brief Description: The Disposal Container Handling System functions to receive empty and retrieved DCs, preparing filled DCs for disposal, and supporting corrective actions required on prepared and retrieved canisters. This system is located in the Waste Handling Facility. Empty DCs are selected from inventory, inspected, and prepared for waste transfer. The DCs are loaded by the Uncanistered or Canistered Waste Transfer System, following which the DC Handling System prepares the container for closure. DC closure includes welding the inner/outer lids, decontamination, and inspection. The DCs are then loaded on the subsurface transporter or stored for later emplacement. The welding/inspection systems include the DC inner lid weld inspection system, the inner weld system, the outer lid weld inspection system, and the outer lid weld system.</p>							
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p>Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>							
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with the Disposal Container Handling welding/inspection system are expected to have radiological safety or waste isolation functions or impacts based on their intended function. There is regulatory precedent indicated within the nuclear industry for this type of system (at spent fuel handling facilities at commercial nuclear utilities). However, due to the fact that an operation on this scale has not been licensed, this system is designated as Bin 3.</u></p>							

SDD Name: Carrier/Cask Transport System	SDD No.: SU16
SSC Name: Carrier/Cask Transportation System, Transporter Maintenance Building, Transporter Maintenance Systems	
Brief Description: The Carrier/Cask Transport System moves transportation casks and their carriers between the waste entry point of the repository, the cask staging shed, and the waste handling facilities. This system is located at the north portal pad (on the surface). The system moves rail and truck casks (and their carriers). Facilities and equipment associated with this system includes the Transporter Maintenance Building, the Carrier/Cask Transportation system (rail system, road system, on-site prime mover, shipment inspection systems), and the Transporter Maintenance System (battery charging, decontamination, electromechanical equipment maintenance, oily water separation, transporter maintenance, and transporter service systems).	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>The SSCs associated with the Carrier/Cask Transport System have no radiological safety or waste isolation function or impact based on existing design information. This system will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation) common to the mining/transportation/rail industry.</u>	

SDD Name: Offsite Rail and Road System	SDD No.: SU17
SSC Name: General Offsite Transportation, Nevada Rail Subsystem, Nevada Road Subsystem, Transportation Support Depots and Facilities	
Brief Description: The Offsite Rail and Road System facilitates the movement of transportation casks and carriers within the state of Nevada. This system is located within designated transportation corridors between the Nevada state border and the repository site. This system must provide safe, stable roadway and/or railway capable of supporting the loads imposed by loaded transportation cask carriers and provide intermodal transfer (i.e., rail to truck or truck to rail). This system includes the Nevada rail and road subsystems, transportation support depots, and associated facilities.	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>
<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):	
<u>The SSCs associated with the Offsite Rail and Road System have no radiological safety or waste isolation function or impact based on existing design information. This system will be comprised of commercial-grade components, systems, and facilities (i.e., non-nuclear grade; not required for radiological safety or waste isolation) common to the truck/rail transportation/shipping industry.</u>	

SDD Name: Waste Handling Facility Electrical System		SDD No.: SU18
SSC Name: Electrical Power Systems, Lighting Systems (Emergency Lighting System)		
<p>Brief Description: The Waste Handling Facility Electrical System performs the functions of distributing, monitoring, and controlling site AC power to all waste handling facility users. The system consists of the transformers, switchgear, controllers, uninterruptable power supplies (UPS), and distribution subsystems required to power facility lighting, ventilation, instrumentation, and mechanical equipment. Standby power is automatically maintained to the facility ventilation system, emergency lighting, and other safety systems. The Electrical Power System includes the UPS system, the electrical power distribution system, and the backup electrical power distribution system.</p>		
Check one:		
<input type="checkbox"/>	Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/>	Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input type="checkbox"/>	Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>These SSCs associated with Electrical Power Systems (including the backup power distribution system and the UPS system), and the emergency lighting SSC that is a component of the Lighting System, are expected to have radiological safety or waste isolation functions or impacts, based on their intended function. These systems provide power to maintain such important to safety systems as the facility ventilation system and other safety systems. However, there is regulatory precedent already indicated within the nuclear industry for this type of system. Therefore, these SSCs are designated as Bin 2.</u></p>		

SDD Name: Waste Handling Facility Electrical System		SDD No.: SU18								
SSC Name: Lighting Systems (General Lighting System, In-Cell Lighting System), Lightning Protection System										
<p>Brief Description: The Waste Handling Facility Electrical System performs the functions of distributing, monitoring, and controlling site AC power to all waste handling facility users. The system consists of the transformers, switchgear, controllers, uninterruptable power supplies (UPS), and distribution subsystems required to power facility lighting, ventilation, instrumentation, and mechanical equipment. Standby power is automatically maintained to the facility ventilation system, emergency lighting, and other safety systems that require controlled shut down. The Electrical Power System includes several SSCs that are not important to radiological safety, including a portion of the lighting systems (general lighting, in-cell lighting) and the lightning protection system.</p>										
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>These SSCs associated with the Waste Handling Facility Electrical System (general lighting system, in-cell lighting system, lightning protection system) have no significant radiological safety or waste isolation function, based on existing design information. This system will be comprised of commercial-grade components, (i.e., non-nuclear grade; not required for radiological safety or waste isolation) common to the commercial nuclear industry.</u></p>										

SDD Name: Waste Handling Facility Ventilation System		SDD No.: SU22								
SSC Name: Nuclear HVAC Systems										
<p>Brief Description: The Waste Handling Facility Ventilation System supplies air and controls the environmental conditions, including radiological, to equipment and personnel areas within the facility. The nuclear HVAC system maintains air flow away from penetration barriers to create air flow paths that minimize the consequences of inadvertent release of radiological particles in populated areas and removes the airborne contamination and protects personnel from radiation exposure. In addition, the system detects the presence of hazardous conditions (such as radiological release, hazardous gas, smoke, etc.) and controls the ventilation in the personnel protection areas.</p>										
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td></td> <td><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>									
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with Waste Handling Facility Ventilation System Nuclear HVAC Systems are expected to have radiological safety or waste isolation functions or impacts based on their intended function. These systems confine airborne radiological particles within designated safety boundaries during normal and off-normal waste handling operations. However, there is regulatory precedent indicated within the nuclear industry for this type of system.</u></p> <p>_____</p> <p>_____</p>										

SDD Name: Waste Handling Facility Ventilation System	SDD No.: SU22						
SSC Name: Non-Nuclear HVAC Systems							
Brief Description: The Waste Handling Facility Ventilation System supplies air and controls the environmental conditions, including radiological, to equipment and personnel areas within the facility. The non-nuclear HVAC system controls the air temperature and flow rates in all non-nuclear ventilation areas. In addition, the system detects the presence of hazardous conditions (such as radiological release, hazardous gas, smoke, etc.) and controls the ventilation in the personnel protection areas.							
Check one: <input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
Indicate documentation used: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
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SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <p><u>The SSCs associated with the non-nuclear portion of the Waste Handling Facility Ventilation System have no significant radiological safety or waste isolation function, based on existing design information. This system will be comprised of commercial-grade components, (i.e., non-nuclear grade; not required for radiological safety or waste isolation). Therefore, these SSCs are Bin 1.</u></p> <hr/> <hr/> <hr/>							

SDD Name: Radiological Waste Treatment Facility Ventilation System	SDD No.: SU24								
SSC Name: Nuclear HVAC Systems									
<p>Brief Description: The Radiological Waste Treatment Facility Ventilation System supplies air and controls the environmental conditions, including radiological, to equipment and personnel areas within the facility. The nuclear HVAC system maintains air flow away from penetration barriers to create air flow paths that minimize the consequences of inadvertent release of radiological particles in populated areas and removes the airborne contamination and protects personnel from radiation exposure. In addition, the system detects the presence of hazardous conditions (such as radiological release, hazardous gas, smoke, etc.) and controls the ventilation in the personnel protection areas.</p>									
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with Radiological Waste Treatment Facility Ventilation System Nuclear HVAC Systems are expected to have radiological safety or waste isolation functions or impacts based on their intended function.</u></p> <p><u>These systems confine airborne radiological particles within designated safety boundaries during normal and off-normal waste handling operations. However, there is regulatory precedent indicated within the nuclear industry for this type of system.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>									

SDD Name: Radiological Waste Treatment Facility Ventilation System	SDD No.: SU24						
SSC Name: Non-Nuclear HVAC Systems							
Brief Description: The Radiological Waste Treatment Facility Ventilation System supplies air and controls the environmental conditions, including radiological, to equipment and personnel areas within the facility. The non-nuclear HVAC system controls the air temperature and flow rates in all non-nuclear ventilation areas. In addition, the system detects the presence of hazardous conditions (such as radiological release, hazardous gas, smoke, etc.) and controls the ventilation in the personnel protection areas.							
Check one: <input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
Indicate documentation used: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <p><u>The SSCs associated with the non-nuclear portion of Radiological Waste Treatment Facility Ventilation System have no significant radiological safety or waste isolation function, based on existing design information. This system will be comprised of commercial-grade components. (i.e., non-nuclear grade: not required for radiological safety or waste isolation). Therefore, these SSCs are designated as Bin 1.</u></p> <hr/> <hr/> <hr/>							

SDD Name: Waste Handling Facility Radiological Monitoring System	SDD No.: SU29						
SSC Name: Exhaust Stack Monitor System, Operations Area Monitor Systems, Process Monitor System							
Brief Description: The Waste Handling Facility Radiological Monitoring System monitors, displays, annunciates, and reports on the radioactivity levels in the Waste Handling Facility (WHF) areas, the facility effluents, and the personnel leaving the facility or performing hazardous area operations. The system is installed in the WHF; it provides local and central display of all radiation levels, audible annunciation of unsafe levels and trends, and communication with alarm, security, health physics, and the emergency response system.							
Check one: <input type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
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System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <p><u>The SSCs associated with the Waste Handling Facility Radiological Monitoring System (including the exhaust stack monitoring system, operations area monitoring system, and process monitor system) are expected to have radiological safety or waste isolation functions or impacts based on their intended function. These systems monitor for radiation in effluent streams as well as personnel areas. However, there is regulatory precedent indicated within the nuclear industry for this type of system, primarily at spent fuel handling facilities at commercial nuclear utilities, as well as DOE facilities.</u></p> <hr/> <hr/> <hr/> <hr/>							

SDD Name: Waste Handling Facility Fire Protection System	SDD No.: SU33								
SSC Name: Fire Detection System, Fire Suppression Systems									
<p>Brief Description: The Waste Handling Facility Fire Protection System performs the function of detecting and automatically suppressing fire in the Waste Handling Facility. The fire detection subsystem provides automatic monitoring and annunciation of fire and potential fire conditions. Components to this subsystem include smoke detection, heat detection, fire pull boxes, and alarm instrumentation. A wet sprinkler, chemical system (as required), or water deluge is automatically initiated where smoke or heat is detected. The system interfaces with the facility ventilation system to detect smoke and fire in specific areas and to maintain the conditions through controlled ventilation.</p>									
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with the Waste Handling Facility Fire Protection System (including the fire detection system and fire suppression system) are expected to have radiological safety or waste isolation functions or impacts based on their intended function. These systems detect and suppress fires throughout the facility, including areas containing radiological waste. However, there is regulatory and design precedent indicated within the nuclear industry for this type of system, primarily at spent fuel handling facilities at commercial nuclear utilities, as well at DOE facilities where spent fuel is handled.</u></p> <p>_____</p> <p>_____</p>									

SDD Name: Site-Generated Radioactive Waste Handling System		SDD No.: SU37						
SSC Name: Aqueous LLW Processing Systems, Chemical LLW Processing Systems, Solid LLW Processing Systems								
<p>Brief Description: The Site-Generated Radioactive Waste Handling System collects and prepares the site-generated low-level radiological solid, liquid, and mixed waste for disposal and transport. The system controls the collection of the low-level liquid waste and treats it prior to packaging for disposal. The liquid waste is neutralized to chemical properties consistent with recycling criteria. Waste volume is reduced through evaporation. Solid low-level waste is also collected, condensed and repackaged for disposal. The system is comprised of the aqueous waste processing systems (evaporation, ion exchange, recycle water, and waste collection systems); the chemical waste processing system (packaging, pH adjustment, and waste collection systems); and the solid waste processing system (compaction, packaging, resin slurry dewatering, waste reduction, and waste sorting systems).</p>								
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>								
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>							
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>							
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>							
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with the Site-Generated Radiological Waste Handling System (including the SSCs associated with the aqueous waste processing system, the chemical waste processing systems, and the solid waste processing systems) are expected to have radiological safety or waste isolation functions or impacts based on their intended function. These systems collect and prepare the site-generated low level radiological solid, liquid, and mixed waste for disposal. However, there is regulatory and design precedent indicated within the nuclear industry for this type of system (waste handling: primarily at spent fuel handling facilities at commercial nuclear utilities, as well as DOE facilities.</u></p>								

SDD Name: Emergency Response System	SDD No.: SU40								
SSC Name: Emergency Response System									
<p>Brief Description: The Emergency Response System provides emergency response to accident conditions at or near the repository. The system maintains the emergency and rescue equipment, facilities, and trained professionals required to respond to fire, radiological, mining, industrial, and general accident events on the surface and subsurface. The system controls evacuation and rescue services and provides medical care to personnel. The primary emergency response subsystems consist of the Fire Station, the Medical Facility, the Health Physics Facility, and the mine rescue equipment stores.</p>									
<p>Check one:</p> <p><input type="radio"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="radio"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="radio"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 008</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>								
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>								
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The emergency response portion of the Emergency Response System may have personnel radiological safety implications, based on existing information concerning this system. However, there is regulatory precedent indicated within the nuclear industry for the emergency response system associated with radiological hazards, primarily at spent fuel handling facilities at commercial nuclear utilities, as well as DOE facilities. Therefore, this system is designated as Bin 2.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>									

SDD Name: Emergency Response System		SDD No.: SU40								
SSC Name: Fire Station, Medical Facility										
<p>Brief Description: The Emergency Response System provides emergency response to accident conditions at or near the repository. The system maintains the emergency and rescue equipment, facilities, and trained professionals required to respond to fire, radiological, mining, industrial, and general accident events on the surface and subsurface. The system controls evacuation and rescue services and provides medical care to personnel. The primary emergency response subsystems consist of the Fire Station, the Medical Facility, the Health Physics Facility, and the mine rescue equipment stores.</p>										
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 . no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>										
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System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>									
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>									
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>									
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>									
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The fire station and medical facility have no significant radiological safety or waste isolation function, based on existing information concerning this system. These SSCs will be comprised of conventional rescue equipment and medical facilities commonly used in mining, at commercial nuclear facilities, as well as other industries.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>										

SDD Name: Health Safety System	SDD No.: SU41
SSC Name: Health Monitoring & Records System, Health Physics Laboratory System, Instrumentation & Data System, Occupational Safety & Health	
Brief Description: The Health Safety System tests and manages personnel exposure to hazardous substances and radiation. The system monitors the operational personnel areas for hazardous materials and provides decontamination for personnel. Personnel entering and leaving radiation areas are scanned to ensure that no contamination has occurred. Emergency decontamination and maintenance/emergency breathing air are available if required. The system maintains health and safety records to support the operational needs of the Administration System.	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<p><u>The SSCs associated with the Health Safety System have no significant radiological safety or waste isolation function, based on existing information concerning this system (monitoring equipment, for example, is expected to be controlled using programmatic/administrative processes). This system provides for occupational safety through personnel monitoring and restrictions on access to areas with radiological and hazardous material inventories. In addition, this system will be comprised of record keeping/tracking equipment and systems. The equipment in this system will be comprised of conventional monitoring, emergency response, and breathing air equipment commonly used in mining, at commercial nuclear facilities, as well as other industries.</u></p>	

SDD Name: Site Communications System		SDD No.: SU42
SSC Name: General Site Communications System (Office and Data Systems, Phone system), Microwave Systems		
Brief Description: The Site Communications System maintains site-wide and off-site voice, data and video communications. The system maintains public and secure communications for all subsurface and surface communications and for connection to off-site waste transportation operations. The system includes the land line and the fixed and mobile microwave systems required for integrated site/off-site communications.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The office and data system, phone system, and microwave systems associated with the Site Communication</u>		
<u>System have no significant radiological safety or waste isolation function, based on existing design information.</u>		
<u>These systems will be comprised of commercial-grade communications components, (i.e., non-nuclear grade; not</u>		
<u>required for radiological safety or waste isolation). Therefore, these SSCs are Bin 1.</u>		

SDD Name: Site Communications System		SDD No.: SU42
SSC Name: General Site Communications System (Fire and Emergency Response Communication, Public Address and Central Alarm System, Security Communications System)		
Brief Description: The Site Communications System maintains site-wide and off-site voice, data and video communications. The system maintains public and secure communications for all subsurface and surface communications and for connection to off-site waste transportation operations. The system includes the land line and the fixed and mobile microwave systems required for integrated site/off-site communications.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input checked="" type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u>
		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<p><u>These SSCs associated with the Site Communication System may have radiological safety or waste isolation functions, based on existing design information. However, there is regulatory precedent indicated within the nuclear industry for these types of alarm, emergency, and security communications systems. Therefore, these SSCs are designated as Bin 2.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>		

SDD Name: Site Water System		SDD No.: SU43
SSC Name: Flood Control System, Site Water Systems (Fire Water Distribution System),		
Brief Description: The Site Water System supplies potable and non-potable water to surface facilities and the Subsurface Water Distribution System. The system is located throughout the surface portion of the repository. The Site Water Systems SSC includes the chilled water system, the cooling water system, the flood control system, the potable well water system, as well as the fire water distribution system.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/> Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The fire water distribution and the flood control systems associated with the Site Water System are expected to have radiological safety and waste isolation functions or impacts based on the intended functions of these systems.</u>		
<u>The flood control system prevents the build-up of water that could damage facilities and/or casks/canisters containing spent fuel, or potentially lead to a criticality. The fire water distribution system could mitigate (or eliminate) the consequences of a fire in a surface operations facility. There is regulatory precedent indicated within the nuclear industry for these types of system (flood control, water/fire water distribution systems).</u>		
<u>Therefore, these SSCs are designated as Bin 2</u>		

SDD Name: Site Water System	SDD No.: SU43
SSC Name: Site Water Systems (Chilled Water System, Cooling Water System, Potable Water System, Well Water System), Utility Building System	
Brief Description: The Site Water System supplies potable and non-potable water to surface facilities and the Subsurface Water Distribution System. The system is located throughout the surface portion of the repository. The utility building system is a subsystem to the Site Water System.	
Check one:	
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>These SSCs associated with the is Site Water System (chilled water system, cooling water system, potable water system, well water system, utility building system) have no significant radiological safety or waste isolation functions or impacts, based on existing design information. These SSCs are comprised of commercial-grade components and systems for water delivery (i.e., non-nuclear grade; not required for radiological safety or waste isolation). Therefore, these SSCs are designated as Bin 1.</u>	
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SDD Name: Site Electrical Power System		SDD No.: SU44						
SSC Name: Site Lighting (Safety/Security Lighting), Standby Power Systems								
<p>Brief Description: The Site Electrical Power System distributes and controls utility and backup power to all site users. The site electrical power system provides power for the surface facilities and systems and for the subsurface repository development and emplacement. Backup power is generated by the standby power subsystem. The standby subsystem consists of diesel generators and switchgear located in a separate building on the site surface. In addition to the site electrical power system supplying primary and standby power, it also supplies emergency and uninterruptable power for personal safety and critical operations, and for safety/security lighting systems.</p>								
<p>Check-one:</p> <p>Bin 1 . no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>								
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>							
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>							
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs associated with the Standby Power Systems subsystem of the Site Electrical Power System (standby power generator system, generator fuel supply system, and standby power distribution system) are expected to have radiological safety or waste isolation functions or impacts based on their intended function. These subsystems provide backup power to operations and processes that are important to radiological safety, such as ventilation systems. However, there is regulatory and design precedent indicated within the nuclear industry for this type of system (and these subsystems), primarily at spent fuel handling facilities at commercial nuclear utilities, as well as DOE facilities where spent fuel is handled.</u></p>								

SDD Name: Site Electrical Power System	SDD No.: SU44						
SSC Name: Site Lighting Systems (General Lighting), Substation, Switchgear Building, Utility Power Distribution System							
Brief Description: The Site Electrical Power System distributes and controls utility and backup power to all site users. The site electrical power system provides power for the surface facilities and systems and for the subsurface repository development and emplacement. This system generates and distributes power of sufficient quality and quantity for user end loads. Safety features are provided to protect personnel from accidents and/or failures. It contains subsystems for local and remote monitoring and control.							
Check one: <input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
Indicate documentation used: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <u>These subsystems of the Site Electrical Power System (site lighting system, substation, switchgear building, utility power distribution system) have no radiological safety or waste isolation function or impact based on existing design information. These systems will be comprised of commercial-grade components and systems for electrical power supply and distribution (i.e., non-nuclear grade; not required for radiological safety or waste isolation).</u> <u>Therefore, these systems are Bin 1.</u> <hr/> <hr/> <hr/>							

SDD Name: Site Compressed Air System	SDD No.: SU45
SSC Name: Air Compression System, Industrial Air Distribution System, Instrument Air Distribution System	
Brief Description: The Site Compressed Air System provides industrial air to the subsurface air distribution system. The compressed air is used for pneumatic tooling, actuators, and material handling equipment. The system also provides primary and backup compressed air, provides remote control and monitoring, and conditions the compressed air. The system includes a backup system to provide compressed air to critical systems.	
Check one:	
Bin 1 no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:	
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):	
<u>These subsystems of the Site Compressed Air System (air compression, industrial air distribution, and instrument air distribution systems) may have radiological safety and/or waste isolation functions or impacts, based on existing design information. These systems will supply and distribute compressed air to instrumentation and equipment that may be required to maintain radiological safety in surface facilities where spent nuclear fuel is received and prepared for emplacement in the repository. There is precedent for these types of systems in the commercial nuclear industry; herefore, these systems are designated as Bin 2</u>	

SDD Name: Site Generated Hazardous & Non-Hazardous Waste Disposal System		SDD No.: SU47
SSC Name: Hazardous Waste Collection System, Sanitary Solid Waste Collection System, Sanitary Waste Treatment System, Subsurface Waste Water Collection System		
Brief Description: The Site Generated Hazardous & Non-Hazardous Waste Disposal System collects and handles non-radiological wastes generated at the site (note that site-generated radioactive and mixed wastes are handled by the Site-Generated Radiological Waste Handling System). The system collects and packages solid and liquid hazardous waste at surface and subsurface generation locations. The packaged waste is then transferred to accumulation sheds for off-site shipment. Sanitary, nonhazardous waste is collected at containers throughout the site, after which it is periodically collected and transferred to off-site disposal. Sanitary liquid waste is routed via sewer lines to the sanitary waste treatment facility located on-site. Subsurface waste water is pumped to the Waste Water Collection System on the surface.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 008</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u>
		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<u>The subsystems that comprise the Site-Generated Hazardous & Non-Hazardous Waste Disposal System (including the hazardous waste collection, sanitary solid waste collection, sanitary waste treatment, and subsurface waste water collection systems) have no radiological safety or waste isolation function or impact based on existing design information. These systems will be comprised of commercial-grade components (i.e., non-nuclear grade; not required for radiological safety or waste isolation) for the collection and handling of hazardous and sanitary waste generated at the site. Therefore, these systems are Bin 1.</u>		
<hr/> <hr/>		

SDD Name: Security & Safeguards System		SDD No.: SU48
SSC Name:, Security Badging & Records System Security, Security Barrier Systems, Security Facilities, Security Surveillance System, Safeguards Material Control and Accountability		
<p>Brief Description: The Security & Safeguards System performs the surveillance and safeguards functions required to protect the repository from unauthorized intrusion, sabotage, and theft and diversion (if necessary) of nuclear material. The system includes the site security barriers and the automated surveillance, badging, and record subsystems required to monitor and control access to all site areas and facilities. The security office issues badges for specific area access and maintains continuous monitoring of the status of the site security system. Security inspections are performed at site access points to prevent unauthorized access and to provide for detection of contraband. The security patrol extends defensive/surveillance capabilities to remote and inaccessible areas of the site and prevents against armed intrusion. Safeguards material control and accountability is responsible for protecting and maintaining the inventories of nuclear material. The security barrier system and security surveillance systems both provide nuclear material safeguard functions.</p>		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/> Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>These SSCs associated with the Security and Safeguards System do not have specific radiological safety or waste isolation functions or impacts, based on the intended function of these SSCs, but they are of specific regulatory interest. There is regulatory and design precedent associated with systems for the control and access to special nuclear materials within the nuclear industry for these types of subsystems; primarily at spent fuel handling facilities at commercial nuclear utilities as well as DOE facilities where spent fuel is handled. Therefore, these systems are designated as Bin 2.</u></p>		

SDD Name: Surface Environmental Monitoring System		SDD No.: SU49
SSC Name: Data Acquisition System, Meteorological Monitoring System, Sample Collection System, Seismic Monitoring System		
Brief Description: The Surface Environmental Monitoring System monitors the surface areas and ground water for radioactivity and hazardous substance release into the environment. This system is located at the surface site area, on the site perimeter, and at several off-site locations. The system monitors for radiation, loss of confinement, and for the presence of hazardous materials for both operational and accident conditions. The air and water wells are both monitored for airborne and waterborne radioactive and/or hazardous particulates or components. The system alerts appropriate personnel when established thresholds are exceeded.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
<input checked="" type="checkbox"/>	Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>The Surface Environmental Monitoring System (including the data acquisition system, meteorological monitoring system, sample collection system, and seismic monitoring system) is expected to have radiological safety or waste isolation functions or impacts based on the intended functions of this system. This system performs radiological safety functions through the monitoring of airborne and waterborne releases of radioactive particles/materials through both normal operations or as a result of a DBE. However, there is significant regulatory and design precedent indicated within the nuclear industry for this type of monitoring system (and these subsystems), primarily at spent fuel handling facilities at commercial nuclear utilities as well as DOE facilities where spent fuel is handled. Therefore, this system is Bin 2.</u></p>		

SDD Name: Surface Environmental Monitoring System	SDD No.: SU49								
SSC Name: Laboratory Facility System									
<p>Brief Description: The Surface Environmental Monitoring System monitors the surface areas and ground water for radioactivity and hazardous substance release into the environment. This system is located at the surface site area, on the site perimeter, and at several off-site locations. The system monitors for radiation, loss of confinement, and for the presence of hazardous materials for both operational and accident conditions. The air and water wells are both monitored for airborne and waterborne radioactive and/or hazardous particulates or components. The system alerts appropriate personnel when established thresholds are exceeded. The laboratory facility system is the physical location/facilities where the samples are to be analyzed.</p>									
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The Laboratory Facility System, a subsystem of the Surface Environmental Monitoring System, is not expected to have radiological safety or waste isolation functions or impacts, based on the intended functions of this system.</u></p> <p><u>This facility will be comprised of the laboratories where samples will be analyzed. Therefore, this system is designated as Bin 1.</u></p> <p>_____</p> <p>_____</p>									

SDD Name: Administrative System	SDD No.: SU50								
SSC Name: Administration System Facilities, Administration Systems									
<p>Brief Description: The Administrative System performs the site management and administrative services required to plan and direct repository operations. This system is located in the Administration Building stationed in the balance-of-plant area. SSCs that comprise this system include the Administration System Facilities (administration building, visitors center, mock-up building) and the Administration Systems (engineering, office services and records, operations management and planning computer, training, and the transportation dispatch computer systems).</p>									
<p>Check one:</p> <p><input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
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Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The subsystems that comprise the Administration System, (including the administration system facilities and the administration systems) have no significant radiological safety or waste isolation function or impact, based on existing design information. These systems will include commercial-grade structures and systems/data processing systems (i.e., non-nuclear grade; not required for radiological safety or waste isolation) for performing administrative functions associated with the repository and its employees. Therefore, these systems are Bin 1.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>									

SDD Name: Maintenance & Supply System	SDD No.: SU51						
SSC Name: Maintenance & Supply System Facilities, Maintenance & Supply Systems							
Brief Description: The Maintenance & Supply System maintains adequate supplies and repair capability to ensure that the surface and subsurface operations operate with minimum downtime. Subsystems include the maintenance and supply system facilities (central shops, central warehouse, disposal canister receiving shed) and the maintenance and supply systems (empty disposal container supply, equipment storage and retrieval, inventory planning and management, maintenance planning and management, and repair systems). The primary repair shops, warehouses, and equipment yards are located on the surface.							
Check one: <input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected <input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated <input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated							
Indicate documentation used: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>						
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>						
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>						
Rationale for priority (attached additional sheets if necessary): <p><u>The Maintenance and Supply System (consisting of the maintenance and supply system facilities and the maintenance and supply systems) has no significant radiological safety or waste isolation function or impact, based on existing design information. This system will include commercial-grade structures and systems (i.e., non-nuclear grade; not required for radiological safety or waste isolation) for performing the maintenance and supply functions associated with the repository. Therefore, these systems are Bin 1</u></p> <p>_____</p> <p>_____</p> <p>_____</p>							

SDD Name: Central Command & Control Operations System	SDD No.: SU52								
SSC Name: Central Computer System, Operator Station System									
<p>Brief Description: The Central Command & Control Operations System monitors the status of repository operations and support systems. The system includes the automated data processing equipment and network communications equipment required to automatically acquire status and data from all site facility, utility, and subsurface monitoring and control systems. The system is located in the balance of plant area. The system is required to maintain effective monitoring of overall site status, control the primary functions associated with critical and safety related equipment, and share information with the site operating stations.</p>									
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p><input checked="" type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p>Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>									
<p>Indicate documentation used:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td style="width: 50%; border: none;"><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td style="border: none;">SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td style="border: none;"><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td style="border: none;">Other documentation used</td> <td style="border: none;"><u>MGDS SDD Identification List, February 21, 1997</u></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"><u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>		System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>		<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>								
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>								
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>								
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>								
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs that embody the Central Command and Control Operations System (including the central computer system and the operator station system) may have radiological safety/waste isolation functions or impact, based on existing design information. The Central Command and Control Operations System will include equipment and systems responsible for monitoring safety-related and critical equipment associated with the repository. However, there is significant radiological precedent in the nuclear industry for these types of systems and equipment. Therefore, these SSCs are designated as Bin 2.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>									

SDD Name: Off-Site Utilities System		SDD No.: SU53
SSC Name: Offsite Utilities System		
Brief Description: The Offsite Utilities System provides for the transmission of electrical power and the distribution of water to the repository from off-site Nevada locations. This system consists of a combination of new and upgraded systems to add additional electrical power capacity and provide for additional water capacity and to provide for remote monitoring and control of each system.		
Check one:		
<input checked="" type="checkbox"/> Bin 1 no significant radiological safety or waste isolation function or impact expected		
<input type="checkbox"/> Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated		
<input type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated		
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00E</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs associated with the Offsite Utilities System have no significant radiological safety or waste isolation function or impact based on existing design information. The Off-Site Utilities System will utilize commercial-grade/commercially-available equipment and systems (i.e., non-nuclear grade; not required for radiological safety or waste isolation). Therefore, these SSCs are Bin 1.</u>		
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SDD Name: General Site Transportation System		SDD No.: SU54
SSC Name: Development Transportation System, General Site Transportation Systems, Motor Pool & Facility Service Station		
Brief Description: The General Site Transportation System provides for transportation for personnel and materials within the various facilities and areas of the surface repository. This system consists of the vehicles, parking areas, and the road/rail subsystem required to do so. The SSCs that comprise this system include the Development Transportation System, General Site Transportation Systems (fuel supply, general rail, general road, and vehicle repair subsystems), and the Motor Pool & Facility Service Station.		
Check one:		
<input checked="" type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<p><u>The SSCs that comprise the General Site Transportation System (including the development transportation system, the general site transportation system, and the motor pool and facility service station) have no radiological safety or waste isolation function or impact, based on existing design information. The General Site Transportation System will include vehicles and road/rail systems that use commercial-grade/commercially-available equipment and systems (i.e., non-nuclear grade; not required for radiological safety or waste isolation) to provide for transportation of personnel between the various surface facilities and areas. Therefore, these SSCs are Bin 1.</u></p> <p>_____</p> <p>_____</p> <p>_____</p>		

SDD Name: Uncanistered SNF Disposal Containers		SDD No.: WP01
SSC Name: 21 PWR Disposal Container (DC), with absorber plates; 21 PWR DC, no absorber plates; 12 PWR DC, no absorber plates; 12 PWR DC with absorber plates, South Texas Fuel; 44 BWR DC, no absorber plates; 44 BWR DC with absorber plates; 24 BWR DC, with thick absorber plates		
Brief Description: These SSCs are associated with disposal containers for spent nuclear fuel (uncanistered assemblies) for spent fuel from pressurized water reactors and boiling water reactors (PWRs and BWRs). The assembly types include those with and without assembly plates, with thick absorber plates, and longer fuel from the South Texas Project reactors.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997.</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. The Uncanistered SNF Disposal Containers support the confinement and isolation of waste within the engineered barrier of the MGDS. These containers are unique designs for disposal at the MGDS and have no nuclear industry analog.</u>		

SDD Name: Canistered SNF Disposal Containers		SDD No.: WP02
SSC Name: BWR Disposal Container		
Brief Description: These SSCs are associated with disposal containers for spent nuclear previously loaded into and used in boiling water reactors (BWRs).		
Check one:		
Bin 1 no significant radiological safety or waste isolation function or impact expected		
Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated		
<input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated		
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. The Canistered SNF Disposal Containers support the confinement and isolation of waste within the engineered barrier of the MGDS. These containers are unique designs for disposal at the MGDS and have no nuclear industry analog.</u>		

SDD Name: High Level Waste Disposal Containers		SDD No.: WP03						
SSC Name: 5 DHLW Co-Disposal DC; 5 DHLW Co-Disposal Hanford DC								
<p>Brief Description: These SSCs are associated with disposal containers that contain canisters of Defense High Level Waste Disposal vitrified glass wasteform from DOE vitrification facilities. This vitrified waste originates at the Savannah River Site, the Hanford site, the Idaho National Engineering and Environmental Laboratory, and/or the West Valley site. Five of the canisters of vitrified waste are placed in each waste package.</p>								
<p>Check one:</p> <p>Bin 1 no significant radiological safety or waste isolation function or impact expected</p> <p>Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated</p> <p><input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated</p>								
<p>Indicate documentation used:</p> <table border="0"> <tr> <td>System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)</td> <td><u>Mined Geologic Disposal System Architecture, Rev 00B</u></td> </tr> <tr> <td>SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)</td> <td><u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u></td> </tr> <tr> <td>Other documentation used</td> <td><u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u></td> </tr> </table>			System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>							
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>							
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>							
<p>Rationale for priority (attached additional sheets if necessary):</p> <p><u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. The High-Level Waste Disposal Containers support the confinement and isolation of waste within the engineered barrier of the MGDS. These containers are unique designs for disposal at the MGDS and have no nuclear industry analog.</u></p> <p>_____</p> <p>_____</p>								

SDD Name: DOE Waste Forms Disposal Containers		SDD No.: WP04
SSC Name: Aluminum-based fuel DC; disrupted fuel DC; intact oxide DC; thorium oxide DC; uranium oxide DC; uranium metal and alloy DC; uranium carbide DC; zirconium hydride DC		
Brief Description: These disposal containers support the diverse group of Department of Energy waste form disposal containers, including those for the fuels constructed of various metals and intact oxides and disrupted fuel.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. The DOE Waste Form Disposal Containers support the confinement and isolation of waste within the engineered barrier of the MGDS. These containers are unique designs for disposal at the MGDS and have no nuclear industry analog.</u>		

SDD Name: Navy Fuel Disposal Containers		SDD No.: WPxx
SSC Name: Inner Barrier, Outer Barrier, Canister Support		
Brief Description: These disposal containers are used for confinement and emplacement of fuel from various nuclear reactors used in the United States Naval Vessels.		
Check one:		
<input type="checkbox"/>	Bin 1	no significant radiological safety or waste isolation function or impact expected
<input type="checkbox"/>	Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated
<input checked="" type="checkbox"/>	Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)		<u>Mined Geologic Disposal System Architecture, Rev 00B</u>
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)		<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>
Other documentation used		<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with appreciable regulatory precedent indicated within the nuclear industry. The Navy Fuel Disposal Containers support the confinement and isolation of waste within the engineered barrier of the MGDS. These containers are unique designs for disposal at the MGDS and have no nuclear industry analog.</u>		

SDD Name: Pu Disposal Container		SDD No.: WPxx
SSC Name: Inner Barrier, Outer Barrier, Canister Support		
Brief Description: The Plutonium Disposal Container will be used for the disposal of plutonium stored in canisters. SSCs for this container include the inner and outer barriers and the canister support.		
• Check one:		
Bin 1 no significant radiological safety or waste isolation function or impact expected		
Bin 2 radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated		
<input checked="" type="checkbox"/> Bin 3 radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated		
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 008</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u> <u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. The Plutonium Disposal Containers support the confinement and isolation of waste within the engineered barrier of the MGDS. These containers are unique designs for disposal at the MGDS and have no nuclear industry analog.</u>		

SDD Name: Non-Fuel Components Disposal Containers		SDD No.: WPxx
SSC Name: Inner Barrier, Outer Barrier, Canister Support		
Brief Description: These disposal containers are used for the disposal of containers holding non-fuel components that have been irradiated/activated.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. The Non-Fuel Components Containers support the confinement and isolation of waste within the engineered barrier of the MGDS. These containers are unique designs for disposal at the MGDS and have no nuclear industry analogy.</u>		

SDD Name: Container Closure System Development		SDD No.: WPxx
SSC Name: Welds and welding components, NDE & NDE components, Coatings		
Brief Description: The Container Closure system supports the development of systems used to seal disposal containers, including welding, Non Destructive Evaluation of the closure systems (and the NDE components), and coatings used in the closure systems.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. Container Closure System</u>		
<u>Development supports the confinement and isolation of waste within the engineered barrier of the MGDS. This system consists of unique designs for disposal at the MGDS and has no nuclear industry analog.</u>		

SDD Name: Ex-Container Systems		SDD No.: WPxx
SSC Name: Waste package supports, inverts, drip shields (if required), backfill/packing (if required)		
Brief Description: These systems are used on the exterior of the Disposal Containers to provide for radiological safety and waste isolation. The SSCs associated with this system include waste package supports, inverts, drip shields, and backfill/packing.		
Check one:		
Bin 1	no significant radiological safety or waste isolation function or impact expected	
Bin 2	radiological safety or waste isolation function or impact expected, with significant regulatory precedent indicated	
<input checked="" type="checkbox"/> Bin 3	radiological safety or waste isolation function or impact expected, with no appreciable regulatory precedent indicated	
Indicate documentation used:		
System/SSC function/description (SDD revision/draft and/or SSC architecture revision/draft)	<u>Mined Geologic Disposal System Architecture, Rev 00B</u>	
SSC classification (Q-List rev/draft, class'n analysis revision/draft, and/or DBE scenario analysis revision/draft)	<u>Classification of the Preliminary MGDS Repository Design, Rev. 00, October 6, 1997</u>	
Other documentation used	<u>MGDS SDD Identification List, February 21, 1997</u>	
	<u>Ref. Design Descr. for a Geologic Repository, Rev 01</u>	
Rationale for priority (attached additional sheets if necessary):		
<p><u>The SSCs that comprise this SDD are expected to have radiological safety or waste isolation functions or impacts, with no appreciable regulatory precedent indicated within the nuclear industry. Ex-Container system development supports the confinement and isolation of waste within the engineered barrier of the MGDS. These systems are unique designs for disposal at the MGDS and have no nuclear industry analog.</u></p>		