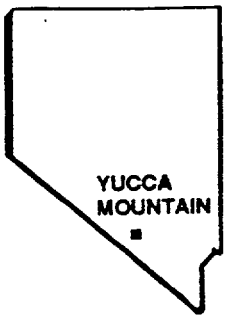
ENCLOSURE 1

U.S. DEPARTMENT OF ENERGY

OCRWM



YUCCA MOUNTAIN PROJECT

Q-LIST

QUALITY ACTIVITIES LIST (QAL)

PROJECT REQUIREMENTS LIST (PRL)

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UNITED STATES DEPARTMENT OF ENERGY

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YUCCA
MOUNTAIN
PROJECT

YMP/90-55
YMP/90-56
YMP/90-57

YUCCA MOUNTAIN PROJECT

Q-LIST

QUALITY ACTIVITIES LIST (QAL)

PROJECT REQUIREMENTS LIST (PRL)

UNITED STATES DEPARTMENT OF ENERGY
YUCCA MOUNTAIN PROJECT OFFICE

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TABLE OF CONTENTS

		Revision	Date
YMP/90-55	QUALITY LIST (Q-LIST)	0	7/24/90
	o Section 1 - Items (Engineered) Important to Safety (IITS)		
	o Section 2 - Items (Engineered Barriers) Important to Waste Isolation (IITWI)		
	o Appendix A - Natural Barriers Important to Waste Isolation		
YMP/90-56	Quality Activities List (QAL)	0	7/24/90
YMP/90-57	Project Requirements List (PRL)	0	7/24/90
	o Section 1 - Items Not Selected As Important To Safety Or As Important To Waste Isolation		
	o Section 2 - All Activities Not Selected As Quality Activities (May contain activities associated with IITS or IITWI)		
	o Appendix A - Exempt Items and Activities		

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YMP/90-55

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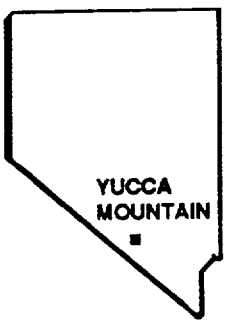
OCRWM



YUCCA MOUNTAIN PROJECT

Q-LIST

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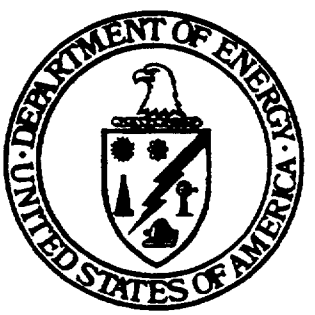

JULY 1990

UNITED STATES DEPARTMENT OF ENERGY

YUCCA
MOUNTAIN
PROJECT

YMP/90-55
Rev. 0
7/24/90

YUCCA MOUNTAIN PROJECT

Q-LIST

UNITED STATES DEPARTMENT OF ENERGY
YUCCA MOUNTAIN PROJECT OFFICE

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Q-LIST: QUALITY LIST
REVISION 0

Approved by completion of review and acceptance by the Quality Review Board:

D Toomath
Quality Review Board Chairman

7/24/90
Date

Revision History

Revision	Date	Change
Rev. 0	7/24/90	Initial issue of approved list.

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INTRODUCTION

The Assessment Team (AT) groups adopted the Physical Subsystems List from the Systems Requirement (SR) document as the principal basis for definition of engineered items important to waste isolation and important to safety. The list was modified, however, to eliminate natural barriers, which are not engineered items, and temporary Exploratory Shaft Facility (ESF) equipment that is used only for site characterization activities and not for repository construction and operation.

The identification of items in the SR Physical Subsystem List is not limited to "items" as defined in NUREG-1318 or the QARD and QAPD. Specifically, the list includes entries under Site that are not engineered items and entries under ESF that are not permanent repository items. With the exception of ESF items intended to be incorporated into a future repository (i.e., permanent items), engineered items in the ESF design shall be treated as tools used carry out the activities of site characterization. Control of tools will be covered under the QA controls imposed as a result of QA grading of the activities on the Quality Activities List and the Project Requirements List. Section 1.2.6.0 of the ESF Subsystem Design Requirements Document (SDRD) names four ESF permanent items for consideration for repository design:

- o ESF Shaft Liners
- o Underground Openings
- o Ground Control
- o Operational Seals

These items may be incorporated into the repository design, and if so, will be covered by the QA program as part of the repository.

The identification of natural barriers is based upon information in the Site Characterization Plan (SCP). The choice of hydrogeologic units for describing the natural barriers at the site parallels the usage in the SCP discussion of groundwater travel time and total system performance (see Tables 8.3.5.12-2 and 8.3.5.13-5). An important mechanism affecting water-borne radionuclide transport is advection. Under nominal conditions, advection considered independently of other transport and retardation process will likely result in natural barrier performance that ensures compliance with the applicable postclosure performance objectives (10 CFR 60.112, and 60.113[a][2]). Hydrogeologic units are specifically intended to describe properties that control liquid groundwater flow, which controls advective transport. Other stratigraphic definitions, such as thermal/mechanical and geochemical stratigraphy, are important for considering the effects of the repository on the geologic setting, and for assessing retardation and other transport mechanisms. The AT group chose to identify natural barriers in terms of hydrogeologic units.

The initial determination of Items Important to Safety does not utilize the detailed evaluations specified in Section 5.5 and Appendix 4 of AP-6.17Q. Instead, all initial assignments are made through the Direct Inclusion and Exemption provisions of AP-6.17Q (Sections 5.3 and 5.4). The procedure prescribes Direct Inclusion as a conservative course for determination of importance until more detailed evaluations are completed.

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AP-6.17Q Section 5.6.3 states "Items that are recommended by the AT Group as IITWI shall be limited to the engineered and natural barrier components of the postclosure repository system." Temporary structures, systems, and components that are not part of the postclosure repository configuration are by this definition not IITWI."

Section 5.6 of AP-6.17Q prescribes the use of SCP Section 8.3.3, 8.3.4, and 8.3.5 for initial determination of IITWI. The AT also included SCP Section 8.3.2 for this evaluation.

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Q-LIST SECTION 1

ITEMS (ENGINEERED) IMPORTANT TO SAFETY (IITS)

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Q-List Section 1 - Items (Engineered) Important to Safety (IITS)

Item : Waste Package
WBS : 1.2.2
Description : SR 2.0 Includes the following subsystems:

Spent Fuel	2.1
Waste Form	2.1.1
Canister	2.1.2
Container	2.1.3
Packing	2.1.4
Other	2.1.9
Defense High-Level Waste	2.2
Waste Form	2.2.1
Canister	2.2.2
Container	2.2.3
Packing	2.2.4
Other	2.2.9
West Valley High-Level Waste	2.3
Waste Form	2.3.1
Canister	2.3.2
Container	2.3.3
Packing	2.3.4
Other	2.3.9

Assignment : IITS-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITS-1
Revision History : Rev. 0, 7/24/90

Item : Surface Service and Utility Systems
WBS : 1.2.4.3
Description : SR 3.1, including the following subsystems:

Onsite Service and Utility Systems	3.1.1
Transportation System	3.1.1.1
roads	3.1.1.1.1
railroads	3.1.1.1.2
Utilities	3.1.1.3
power distribution system	3.1.1.3.1
communication system	3.1.1.3.2
lighting	3.1.1.3.3
potable-water distribution system	3.1.1.3.5
storm drainage system	3.1.1.3.7
sanitary sewage collection system	3.1.1.3.10
fire protection system	3.1.1.3.11
fuel supply	3.1.1.3.12
sanitary landfill	3.1.1.3.13

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Q-List Section 1 - Items (Engineered) Important to Safety (Continued)

Offsite Service and Utility Systems	3.1.2
Transportation System	3.1.2.1
roads	3.1.2.1.1
railroads	3.1.2.1.2
bridges	3.1.2.1.3
Utilities	3.1.2.2
power supply	3.1.2.2.1
communication system	3.1.2.2.2
water supply	3.1.2.2.3
drainage system	3.1.2.2.5

Assignment : IITS-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITS-1
Revision History : Rev. 0, 7/24/90

Item : Surface Facilities
WBS : 1.2.4.3
Description : SR 3.2, including the following subsystems:

Waste-Handling Facilities	3.2.1
Waste Handling Building	3.2.1.1
building and structures	3.2.1.1.1
cask-handling facilities	3.2.1.1.2
hot cells	3.2.1.1.3
utilities	3.2.1.1.4
HVAC equipment	3.2.1.1.5
waste-handling and packaging equipment	3.2.1.1.6
support facilities	3.2.1.1.7
site generated waste collection facilities	3.2.1.1.8
nuclear material control and accountability system	3.2.1.1.9
lag storage	3.2.1.1.10
vehicle wash facility	3.2.1.3.1
performance confirmation building	3.2.1.3.3
waste treatment building	3.2.1.3.4
Support Facilities for Underground Operations	3.2.2
Ventilation Exhaust Shaft Filtration System	3.2.2.1
Primary Fan Installations for Underground Ventilation Systems	3.2.2.5
Explosive Storage	3.2.2.8

Assignment : IITS-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITS-1
Revision History : Rev. 0, 7/24/90

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Q-List Section 1 - Items (Engineered) Important to Safety (Continued)

Item	: Balance of Plant	
WBS	: 1.2.4.3	
Description	: SR 3.2.3 , including the following subsystems:	
	Fire Alarm and Control System	3.2.3.2
	Emergency and Backup Power Generation System	3.2.3.3
	Medical and Mine Rescue Facilities	3.2.3.9
	Monitoring and Operations Control Facilities	3.2.3.11
	Health Physics Stations	3.2.3.12
	Security Facilities	3.2.3.15
	Institutional Barriers	3.2.3.19
Assignment	: IITS-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITS-1	
Revision History	: Rev. 0, 7/24/90	

Item	: Waste Ramp	
WBS	: 1.2.4.3	
Description	: SR 3.3.1, including the following subsystems:	
	communication systems	3.3.1.1.1.60
	portal	3.3.1.1.2.10
	stations	3.3.1.1.2.20
	sump	3.3.1.1.2.30
	lining (includes operational seals)	3.3.1.1.2.40
	roadway	3.3.1.1.2.50
	utility lines	3.3.1.1.2.60
	excavation	3.3.1.1.2.80
Assignment	: IITS-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITS-1	
Revision History	: Rev. 0, 7/24/90	

Item	: Men-And-Materials Shaft	
WBS	: 1.2.4.3	
Description	: SR 3.3.2.0.0.0 , including the following subsystems:	
	headframe	3.3.2.1.1.10
	communication system	3.3.2.1.1.50
	collar	3.3.2.1.2.10
	stations	3.3.2.1.2.20
	sump	3.3.2.1.2.30
	lining (includes operational seals)	3.3.2.1.2.40
	utility lines	3.3.2.1.2.60
	excavation	3.3.2.1.2.80
Assignment	: IITS-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITS-1	
Revision History	: Rev. 0, 7/24/90	

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Q-List Section 1 - Items (Engineered) Important to Safety (Continued)

Item	: Tuff Ramp	
WBS	: 1.2.4.3	
Description	: SR 3.3.3, including the following subsystems:	
	communication systems	3.3.3.1.1.40
	portal	3.3.3.1.2.10
	stations	3.3.3.1.2.20
	lining (includes operational seals)	3.3.3.1.2.40
	utility lines	3.3.3.1.2.60
	excavation	3.3.3.1.2.80
Assignment	: IITS-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITS-1	
Revision History	: Rev. 0, 7/24/90	

Item	: Emplacement Area Exhaust Shaft	
WBS	: 1.2.4.3	
Description	: SR 3.3.7, including the following subsystems:	
	hoisthouse	3.3.7.1.1.20
	communication system	3.3.7.1.1.40
	collar	3.3.7.1.2.10
	station	3.3.7.1.2.20
	sump	3.3.7.1.2.30
	lining (includes operational seals)	3.3.7.1.2.40
	fixtures	3.3.7.1.2.50
	pump discharge pipe columns	3.3.7.1.2.60
	excavation	3.3.7.1.2.80
Assignment	: IITS-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITS-1	
Revision History	: Rev. 0, 7/24/90	

Item	: ES Modifications for Waste Emplacement Area Air Intake	
WBS	: 1.2.4.3	
Description	: SR 3.3.8, including the following subsystems:	
	headframe	3.3.8.1.1.10
	hoist shelter	3.3.8.1.1.20
	communication system	3.3.8.1.1.50
	collar	3.3.8.1.2.10
	station	3.3.8.1.2.20
	sump	3.3.8.1.2.30
	lining (includes operational seals)	3.3.8.1.2.40
Assignment	: IITS-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITS-1	
Revision History	: Rev. 0, 7/24/90	

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Q-List Section 1 - Items (Engineered) Important to Safety (Continued)

Item	: Underground Excavations (includes operational seals)	
WBS	: 1.2.4.3	
Description	: SR 3.4, including the following subsystems:	
	Main Drift and Entry System	3.4.1
	Tuff Main	3.4.1.1
	Service Main	3.4.1.2
	Ventilation Drifts	3.4.1.3
	Waste Main	3.4.1.4
	Emplacement Panel Openings	3.4.2
	Waste Emplacement Boreholes	3.4.3
	Borehole Shielding Closure and Closure Installer	3.4.3.2
	Borehole Shield Plug and Shield Plug Installer (Shield Plug only)	3.4.3.3
	Borehole Shield Plug and Shield Plug Installer (Installer only)	3.4.3.3
Assignment	: IITS-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITS-1	
Revision History	: Rev. 0, 7/24/90	

Item	: Underground Service and Utility Systems	
WBS	: 1.2.4.3	
Description	: SR 3.5, including the following subsystems:	
	Transportation System	3.5.1
	Power Distribution System	3.5.2
	Communication System	3.5.3
	Lighting System	3.5.4
	Ventilation System	3.5.5
	Development Area Ventilation	3.5.5.1
	Emplacement Area Ventilation	3.5.5.2
	Water Distribution System	3.5.6
	Chilled Water	3.5.6.1
	Potable Water	3.5.6.2
	Industrial Water	3.5.6.3
	Water Collection and Disposal System	3.5.7
	Compressed Air Distribution System	3.5.8
	Fire Protection and Control System	3.5.9
	Fuel Handling, Storage, and Distribution System	3.5.10
	Waste Emplacement and Retrieval System	3.5.12
	Waste Transporter	3.5.12.1
	Positioning System for Standoff and Retrieval	3.5.12.2
	positioning system for standoff and retrieval in short horizontal boreholes	3.5.12.2.1
	positioning system for standoff and retrieval in long horizontal boreholes	3.5.12.2.2
	Operations Control and Administration Facility	3.5.15
	Performance Confirmation Facilities	3.5.16

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Q-List Section 1 - Items (Engineered) Important to Safety (Continued)

Monitoring Systems	3.5.17
Radiological Monitoring	3.5.17.1
Nonradiological Monitoring	3.5.17.2
Emergency Services	3.5.18
Decontamination facility	3.5.20

Assignment : IITS-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITS-1
Revision History : Rev. 0, 7/24/90

Item : Seals
WBS : 1.2.4.3
Description : SR 3.6, including the following subsystems:

Shaft and Ramp Seals	3.6.1.1
Underground Excavation Seals	3.6.1.2
Exploratory Borehole Seals	3.6.1.3

Assignment : IITS-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITS-1
Revision History : Rev. 0, 7/24/90

Item : Exploratory Shaft Facility
WBS : 1.2.4.3
Description : SR 4.0, including the following subsystems:

Exploratory Shafts	4.4
First Shaft	4.4.1
Lining(includes operational seals)	4.4.1.2
Second Shaft	4.4.2
Lining(includes operational seals)	4.4.2.2
Underground Excavations(includes operational seals and ground control)	4.5

Assignment : IITS-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITS-1
Revision History : Rev. 0, 7/24/90

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Q-LIST SECTION 2

ITEMS (ENGINEERED BARRIERS) IMPORTANT TO WASTE ISOLATION (IITWI)

REVISION 0

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Q-List Section 2 - Items (Engineered Barriers) Important to Waste Isolation

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Item : Waste Package
WBS : 1.2.2
Description : SR 2.0, including the following subsystems:

Spent Fuel	2.1
Waste Form	2.1.1
Canister	2.1.2
Container	2.1.3
Packing	2.1.4
Other	2.1.9
Defense High-Level Waste	2.2
Waste Form	2.2.1
Canister	2.2.2
Container	2.2.3
Packing	2.2.4
Other	2.2.9
West Valley High-Level Waste	2.3
Waste Form	2.3.1
Canister	2.3.2
Container	2.3.3
Packing	2.3.4
Other	2.3.9

Assignment : IITWI-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITWI-1
Revision History : Rev. 0, 7/24/90

Item : Institutional Barriers
WBS : 1.2.4.3
Description : SR 3.2.3.19, (part of Repository (Balance of Plant))
Assignment : IITWI-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITWI-1
Revision History : Rev. 0, 7/24/90

Item : Waste Ramp
WBS : 1.2.4.3
Description : SR 3.3.1, including the following subsystems:

portal	3.3.1.1.2.10
stations	3.3.1.1.2.20
sump	3.3.1.1.2.30
lining	3.3.1.1.2.40
excavation	3.3.1.1.2.80

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Q-List Section 2 - Items (Engineered Barriers) Important to Waste Isolation
(Continued)

Assignment : IITWI-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITWI-1
Revision History : Rev. 0, 7/24/90

Item : Men-And-Materials Shaft
WBS : 1.2.4.3
Description : SR 3.3.2.0.0.0 , including the following subsystems:

collar	3.3.2.1.2.10
stations	3.3.2.1.2.20
sump	3.3.2.1.2.30
lining	3.3.2.1.2.40
excavation	3.3.2.1.2.80

Assignment : IITWI-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITWI-1
Revision History : Rev. 0, 7/24/90

Item : Tuff Ramp
WBS : 1.2.4.3
Description : SR 3.3.3, including the following subsystems:

portal	3.3.3.1.2.10
stations	3.3.3.1.2.20
lining	3.3.3.1.2.40
excavation	3.3.3.1.2.80

Assignment : IITWI-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITWI-1
Revision History : Rev. 0, 7/24/90

Item : Emplacement Area Exhaust Shaft
WBS : 1.2.4.3
Description : SR 3.3.7 , including the following subsystems:

collar	3.3.7.1.2.10
station	3.3.7.1.2.20
sump	3.3.7.1.2.30
lining	3.3.7.1.2.40
excavation	3.3.7.1.2.80

Assignment : IITWI-DI
Bases Info. Ref : SR
Evaluation Pkg Ref : IITWI-1
Revision History : Rev. 0, 7/24/90

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Q-List Section 2 - Items (Engineered Barriers) Important to Waste Isolation (Continued)

Item	: ES Modifications for Waste Emplacement Area Air Intake	
WBS	: 1.2.4.3	
Description	: SR 3.3.8, including the following subsystems:	
	collar	3.3.8.1.2.10
	station	3.3.8.1.2.20
	sump	3.3.8.1.2.30
	lining	3.3.8.1.2.40
Assignment	: IITWI-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITWI-1	
Revision History	: Rev. 0, 7/24/90	

Item	: Underground Excavations	
WBS	: 1.2.4.3	
Description	: SR 3.4, including the following subsystems:	
	Main Drift and Entry System	3.4.1
	Tuff Main	3.4.1.1
	Service Main	3.4.1.2
	Ventilation Drifts	3.4.1.3
	Waste Main	3.4.1.4
	Emplacement Panel Openings	3.4.2
	Waste Emplacement Boreholes	3.4.3
	Borehole Shield Plug and Shield Plug Installer (Shield Plug only)	3.4.3.3
Assignment	: IITWI-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITWI-1	
Revision History	: Rev. 0, 7/24/90	

Item	: Seals	
WBS	: 1.2.4.3	
Description	: SR 3.6, including the following subsystems:	
	Shaft and Ramp Seals	3.6.1.1
	Underground Excavation Seals	3.6.1.2
	Exploratory Borehole Seals	3.6.1.3
Assignment	: IITWI-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITWI-1	
Revision History	: Rev. 0, 7/24/90	

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Q-List Section 2 - Items (Engineered Barriers) Important to Waste Isolation
(Continued)

Item	: Exploratory Shafts	
WBS	: 1.2.4.3	
Description	: SR 4.4, including the following subsystems:	
	First Shaft	4.4.1
	Lining(includes operational seals)	4.4.1.2
	Second Shaft	4.4.2
	Lining(includes operational seals)	4.4.2.2
	Underground Excavations(includes operational seals and ground control)	4.5
Assignment	: IITWI-DI	
Bases Info. Ref	: SR	
Evaluation Pkg Ref	: IITWI-1	
Revision History	: Rev. 0, 7/24/90	

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Q-LIST APPENDIX A

NATURAL BARRIERS
IMPORTANT TO WASTE ISOLATION

REVISION 0

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Q-List Appendix A - Natural Barriers Important to Waste Isolation

Barrier	: Alluvium
WBS	: 1.2
Description	: Distributed alluvial and colluvial deposits, including those in stream channels and on hill slopes. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 3-22
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

Barrier	: Tiva Canyon welded hydrogeologic unit
WBS	: 1.2
Description	: Ash-flow tuff exposed at the surface of Yucca Crest overlying the Paintbrush nonwelded hydrogeologic unit. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 3-22
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

Barrier	: Paintbrush nonwelded hydrogeologic unit
WBS	: 1.2
Description	: Nonwelded tuff underlying the Tiva Canyon welded hydrogeologic unit and overlying the Topopah Springs welded hydrogeologic unit. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 3-22
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

Barrier	: Topopah Spring welded hydrogeologic unit
WBS	: 1.2
Description	: Densely to moderately welded devitrified ash-flow tuff; proposed repository host rock. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 8.3.5.12-2
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

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Q-List Appendix A - Natural Barriers Important to Waste Isolation
(Continued)

Barrier	: Calico Hills nonwelded vitric hydrogeologic unit
WBS	: 1.2
Description	: Nonwelded vitric tuff. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 8.3.5.12-2
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

Barrier	: Calico Hills nonwelded zeolitic hydrogeologic unit
WBS	: 1.2
Description	: Bedded zeolitic tuff. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 8.3.5.12-2
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

Barrier	: Crater Flat Tuff (undifferentiated)
WBS	: 1.2
Description	: Sequence of Prow Pass and Bullfrog welded and nonwelded units. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 8.3.5.12-2
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

Barrier	: Saturated Zone
WBS	: 1.2
Description	: Site geosphere system situated below the water table. Lateral boundaries are TBD.
Assignment	: IITWI - Direct Inclusion
Bases Info. Ref	: SCP Table 8.3.5.12-2
Evaluation Pkg Ref	: IITWI-1
Revision History	: Rev. 0, 7/24/90

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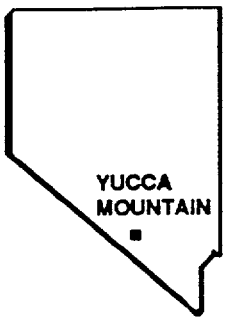

YUCCA MOUNTAIN PROJECT

QUALITY ACTIVITIES LIST (QAL)

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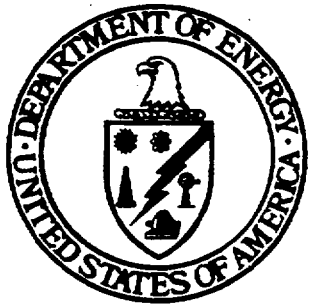

JULY 1990

UNITED STATES DEPARTMENT OF ENERGY

YUCCA
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PROJECT

YMP/90-56
Rev. 0
7/24/90

YUCCA MOUNTAIN PROJECT

QUALITY ACTIVITIES LIST (QAL)

UNITED STATES DEPARTMENT OF ENERGY
YUCCA MOUNTAIN PROJECT OFFICE

QUALITY ACTIVITIES LIST
REVISION 0

Approved by completion of review and acceptance by the Quality Review Board:

[signature] 7/24/90

Quality Review Board Chairman Date

Revision History

Revision	Date	Change
Rev. 0	7/24/90	Initial issue of approved list.

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INTRODUCTION

The evaluations in this report are based upon documentation in the Assessment Team (AT) Controlled List Rev. 2. The procedure prescribes Direct Inclusion as a conservative course for determination of importance until more detailed evaluations are completed.

Sections 5.2 and 5.6 of AP-6.17Q prescribe the use of the YMP WBS Dictionary as a checklist that provides broad coverage of Project activities. Further breakdowns to this listing were made where deemed appropriate by the AT group to address detailed plans submitted by participants for evaluation under AP-6.17Q. The format of the information in the current WBS Dictionary is oriented towards definition of activities rather than items. With a few exceptions in WBS 1.2.6, ESF, and WBS 1.2.4, Repository, there is no specific correlation between Q-List Items and WBS entries. To promote adequate consideration of the importance of items in a WBS based on activities, it is necessary to relate activities to items. For example, activities are assigned to the QAL on the basis of their association with a natural barrier important to waste isolation.

An activity that meets any one of the following criteria shall become a recommended quality activity and be placed on the Quality Activities List:

a. The activity is a site characterization activity that potentially will provide data to be relied on in performance assessments of the waste isolation and containment capabilities of natural and engineered barriers.

    1. The activities related to this criterion provide data that will be used to characterize the natural barriers and that may be used for licensing performance assessments.

    2. The SCP and the semiannual progress reports document which data generated in an activity will be used in performance assessments. Only activities that provide primary information for licensing performance assessments must be included in the Quality Activities List. Scoping, prototypical, or preliminary activities that produce data that will not directly support the licensing performance assessments do <u>not</u> meet this criterion. When a site characterization activity is designated to be scoping, prototypical, or preliminary, it must be shown that there will be other follow-on activities that <u>will</u> be used to support the licensing performance assessment.

b. The activity could have an adverse impact on the ability of a natural or engineered barrier to isolate waste.

    1. The activities addressed by this criterion include construction, operation, and site characterization activities that my adversely impact the ability of the natural barriers to isolate waste. Evaluations may indicate that many of these activities would not significantly affect the performance of natural barriers; however, they are to be included if the activities must be performed in a closely controlled fashion to preclude failures that would cause adverse impacts on the natural barrier.

2. In determining possible adverse impacts, the addition of water or materials, the alteration of properties (hydrologic, mechanical, thermal, or chemical), and the creation of pathways for water or radionuclide transport shall be considered. Any determination that an activity will not adversely impact natural barriers must be clearly conclusive and well documented. (Refer to the postclosure performance objectives in 10 CFR 60.112 and 10 CFR 60.113.)

c. The activity is related to actual performance assessments.

1. The activities addressed by this criterion relate to the postclosure performance assessments that will be performed to demonstrate that the numerical criteria of 10 CFR 60 will be met. Scoping, prototypical, or preliminary assessments that will not be presented or referenced in the above demonstration do not meet this criterion.

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QUALITY ACTIVITIES LIST (QAL)

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Quality Activities List (QAL)

Activity	: Management and Integration (AP-6.17Q Support and non-administrative QA)
WBS	: 1.2.1.1
SCP Reference	: N/A
Description	: Assessment Team activities under AP-6.17Q, QRB support activities, non-administrative QA.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: AP-6.17Q, Rev. 0
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: All - IITS, IITWI
Revision History	: Rev. 0, 7/24/90

Activity	: Systems Engineering
WBS	: 1.2.1.2
SCP Reference	: N/A
Description	: all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Technical Data Base Management (except part of 1.2.1.3.3)
WBS	: 1.2.1.3
SCP Reference	: N/A
Description	: Includes all subordinate activities except those specifically exempted or analyzed as indicated in Project Requirements List Section 2 or Appendix A
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Performance Assessment (except part of 1.2.1.4.7)
WBS	: 1.2.1.4
SCP Reference	: N/A
Description	: all subordinate activities except those specifically exempted or analyzed as indicated in Project Requirements List Section 2 or Appendix A
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI, IITS
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Management & Integration (Non-administrative QA)
WBS	: 1.2.2.1
SCP Reference	: N/A
Description	: Non-administrative QA activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI, IITS - Waste Package 2.0
Revision History	: Rev. 0, 7/24/90

Activity	: Waste Package Environment
WBS	: 1.2.2.2
SCP Reference	: 8.3.4.2.4
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI - Waste Package 2.0
Revision History	: Rev. 0, 7/24/90

Activity	: Waste Form and Materials Testing
WBS	: 1.2.2.3
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI - Waste Package 2.0
Revision History	: Rev. 0, 7/24/90

Activity	: Design, Fabrication, and Prototype Testing
WBS	: 1.2.2.4
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI - Waste Package 2.0
Revision History	: Rev. 0, 7/24/90

Activity	: Management & Integration (non-administrative QA)
WBS	: 1.2.3.1
SCP Reference	: N/A
Description	: Non-Administrative QA activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Geology (except part of 1.2.3.2.2.2.1, 1.2.3.2.6, and 1.2.3.2.8)
WBS	: 1.2.3.2
SCP Reference	: N/A
Description	: Includes all subordinate activities except those specifically identified in PRL Section 2 - Activities Not Quality Related and PRL Appendix A - Exempt Items and Activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Surface Characteristics
WBS	: 1.2.3.2.6
SCP Reference	: 8.3.1.14
Description	: Topography and near surface geotechnical evaluations related to surface facility design
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS - (Waste Handling Building(s))
Revision History	: Rev. 0, 7/24/90

Activity	: Preclosure Tectonics
WBS	: 1.2.3.2.8
SCP Reference	: 8.3.1.17
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: SCP Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS
Revision History	: Rev. 0, 7/24/90

Activity	: Geohydrology
WBS	: 1.2.3.3.1
SCP Reference	: 8.3.1.2
Description	: Includes all subordinate activities except those specifically identified in PRL Section 2 - Activities Not Quality Related and PRL Appendix A - Exempt Items and Activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Preclosure Hydrology (except 1.2.3.3.2.2)
WBS	: 1.2.3.3.2
SCP Reference	: 8.3.1.16
Description	: Includes subordinate activities except WBS 1.2.3.3.2.2, Location of Adequate Water Supplies
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS
Revision History	: Rev. 0, 7/24/90

Activity	: Location of Adequate Water Supplies
WBS	: 1.2.3.3.2.2
SCP Reference	: 8.3.1.16.2
Description	: Site activities dealing with identification of water supplies
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Geochemistry
WBS	: 1.2.3.4
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Drilling (except 1.2.3.5.2.1, 1.2.3.5.3.20, and 1.2.3.5.4)
WBS	: 1.2.3.5
SCP Reference	: N/A
Description	: Includes all subordinate activities except those specifically identified in PRL Section 2 - Activities Not Quality Related and PRL Appendix A - Exempt Items and Activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Surface Facilities Drillholes
WBS	: 1.2.3.5.3.20
SCP Reference	: 8.3.1.14.2.1
Description	: Includes all subordinate activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS (Surface Facilities)
Revision History	: Rev. 0, 7/24/90

Activity	: Environmental Meteorological Studies
WBS	: 1.2.3.6.1
SCP Reference	: 8.3.1.12
Description	: Includes all subordinate activities.
Assignment	: QAL- Direct Inclusion
Bases Info. Ref	: WBS Dictionary; YMP/CC-0005, Rev. 0 , 6/21/89; SCP Sections 8.3.1.5, 8.3.1.2
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS
Revision History	: Rev. 0, 7/24/90

Activity	: Climatology
WBS	: 1.2.3.6.2
SCP Reference	: 8.3.1.5
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Resource Potential
WBS	: 1.2.3.7
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Management and Integration (Technical)
WBS	: 1.2.4.1
SCP Reference	: N/A
Description	: Portion of WBS 1.2.4.1 scope dealing with the integrated design report, development of baselined requirements, selection of design basis data, and evaluation of design options and non-administative QA.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS; IITWI - MGDS
Revision History	: Rev. 0, 7/24/90

Activity	: Design Basis
WBS	: 1.2.4.1.1
SCP Reference	: N/A
Description	: Assemble and review design basis information.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS, IITWI - Repository 3.1
Revision History	: Rev. 0, 7/24/90

Activity	: Development and Testing (except 1.2.4.2.1.3)
WBS	: 1.2.4.2
SCP Reference	: N/A
Description	: Includes all subordinate activities except those specifically exempted or analyzed as indicated in Project Requirements List Section 2 or Appendix A
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI, IITS - MGDS
Revision History	: Rev. 0, 7/24/90

Activity	: Facilities
WBS	: 1.2.4.3
SCP Reference	: N/A
Description	: Design and R&D activities related to repository items. Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS; IITWI - MGDS
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Operations/Maintenance
WBS	: 1.2.4.4
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS; IITWI - MGDS
Revision History	: Rev. 0, 7/24/90

Activity	: Decommissioning
WBS	: 1.2.4.5
SCP Reference	: N/A
Description	: Design related activities. Includes subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS - Repository
Revision History	: Rev. 0, 7/24/90

Activity	: Sealing
WBS	: 1.2.4.6
SCP Reference	: 8.3.3.2.2.1
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI - Seals 3.6
Revision History	: Rev. 0, 7/24/90

Activity	: Licensing (except 1.2.5.2.2, 1.2.5.2.6, and 1.2.5.2.7)
WBS	: 1.2.5.2
SCP Reference	: N/A
Description	: Includes all subordinate activities except those specifically exempted or analyzed as indicated in Project Requirements List Section 2 or Appendix A
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI, IITS - MGDS
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Air Quality/Meteorology
WBS	: 1.2.5.4.2
SCP Reference	: 8.3.1.12.2
Description	: Includes all subordinate activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary; YMP/CC-0005, Rev. 0, 8.3.1.12.2.1 Meteorological Data Collection at the Yucca Mountain site; SCP Sections 8.3.1.5 and 8.3.1.2
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS
Revision History	: Rev. 0, 7/24/90

Activity	: Archaeological Resources
WBS	: 1.2.5.4.3
SCP Reference	: N/A
Description	: Site surveys and impact mitigation activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Radiological Studies (except Radiological Monitoring Plan activities)
WBS	: 1.2.5.4.5
SCP Reference	: N/A
Description	: All radiological monitoring activities except those controlled by the Radiological Monitoring Plan.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary; YMP/88-14, Rev. 0
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Radiological Studies (Radiological Monitoring Plan - Airborne Radionuclide, Surface Water, and Groundwater Monitoring)
WBS	: 1.2.5.4.5
SCP Reference	: N/A
Description	: Water monitoring (Sec. 4.3.5) and airborne radionuclide monitoring (Section 4.3.4) activities in Radiological Monitoring Plan.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary; YMP/88-14, Rev. 0
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Soils
WBS	: 1.2.5.4.6
SCP Reference	: N/A
Description	: Field surveys and monitoring, support reclamation development.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Terrestrial Ecosystems
WBS	: 1.2.5.4.7
SCP Reference	: N/A
Description	: Field surveys and monitoring, support reclamation program development.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Water Resources
WBS	: 1.2.5.4.8
SCP Reference	: N/A
Description	: Field surveys and monitoring
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Transportation Studies
WBS	: 1.2.5.5.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Exploratory Shaft Management, Planning, and Technical Assessment (Technical Assessment Activities)
WBS	: 1.2.6.1.1
SCP Reference	: N/A
Description	: Portion of WBS 1.2.6.1.1 scope dealing with technical assessment activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI - ESF permanent items
Revision History	: Rev. 0, 7/24/90

Activity	: Quality Assurance (Non-administrative QA)
WBS	: 1.2.6.1.2
SCP Reference	: N/A
Description	: Includes all non-administrative QA activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS, IITWI - ESF permanent items
Revision History	: Rev. 0, 7/24/90

Activity	: Site Preparation
WBS	: 1.2.6.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Surface Facilities
WBS	: 1.2.6.3
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI, IITS - Exploratory Shafts 4.4
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: First Shaft (except 1.2.6.4.2)
WBS	: 1.2.6.4
SCP Reference	: N/A
Description	: Includes all subordinate activities except ES-1 Hoist and Headframe (1.2.6.4.2)
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI, IITS - First Shaft 4.4.1
Revision History	: Rev. 0, 7/24/90

Activity	: Second Shaft (except 1.2.6.5.2)
WBS	: 1.2.6.5
SCP Reference	: N/A
Description	: Includes all subordinate activities except ES-2 Hoist and Headframe (1.2.6.5.2)
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI, IITS - Second Shaft 4.4.2
Revision History	: Rev. 0, 7/24/90

Activity	: Subsurface Excavations
WBS	: 1.2.6.6
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI - Underground Excavations 4.5
Revision History	: Rev. 0, 7/24/90

Activity	: Underground Service Systems (except 1.2.6.7.2 and 1.2.6.7.3)
WBS	: 1.2.6.7
SCP Reference	: N/A
Description	: Includes all subordinate activities except ES-1 and ES-2 Shaft Internals and Conveyances (1.2.6.7.2 and 1.2.6.7.3)
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Integrated Data Systems
WBS	: 1.2.6.8.4
SCP Reference	: 8.3.1
Description	: Includes all subordinate activities
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI
Revision History	: Rev. 0, 7/24/90

Activity	: Decommissioning
WBS	: 1.2.6.9
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Management & Integration (non-administrative QA)
WBS	: 1.2.7.1
SCP Reference	: N/A
Description	: Non-administrative QA activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: New Facility Acquisition
WBS	: 1.2.7.3
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Quality Activities List (QAL) (Continued)

Activity	: Project Peer Review
WBS	: 1.2.9.1.3
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: QAPD, DOE/RW-0215, Rev. 2, Appendix A, Section 20.4.2, Peer Review; WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITWI,IITS
Revision History	: Rev. 0, 7/24/90

Activity	: Quality Assurance (non-administrative QA)
WBS	: 1.2.9.3
SCP Reference	: N/A
Description	: Non-Administrative QA activities.
Assignment	: QAL - Direct Inclusion
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS, IITWI - MGDS
Revision History	: Rev. 0, 7/24/90

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YMP/90-57

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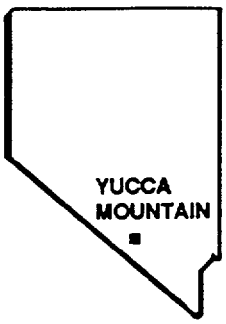

YUCCA MOUNTAIN PROJECT

PROJECT REQUIREMENTS LIST (PRL)

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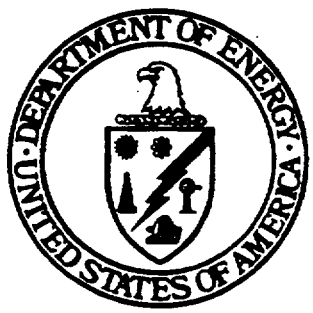

JULY 1990

UNITED STATES DEPARTMENT OF ENERGY

YUCCA
MOUNTAIN
PROJECT

YMP/90-57
Rev. 0
7/24/90

YUCCA MOUNTAIN PROJECT
PROJECT REQUIREMENTS LIST (PRL)

UNITED STATES DEPARTMENT OF ENERGY
YUCCA MOUNTAIN PROJECT OFFICE

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PROJECT REQUIREMENTS LIST
REVISION 0

Approved by completion of review and acceptance by the Quality Review Board:

B Smith

Quality Review Board Chairman

7/24/90.

Date

Revision History

Revision	Date	Change
Rev. 0	7/24/90	Initial issue of approved list.

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INTRODUCTION

The basis for not selecting and for exempting items and activities is described in the evaluations sections of the supporting materials. Many of the activities are related to engineered items important to safety, engineered items important to waste isolation, or activities on the quality activities list. They should be graded and controlled accordingly.

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PROJECT REQUIREMENTS LIST
SECTION 1

ITEMS NOT SELECTED AS
ITEMS IMPORTANT TO SAFETY (IITS)
OR AS
ITEMS IMPORTANT TO WASTE ISOLATION (IITWI)

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Project Requirements List Section 1 - Items NOT Selected as Items Important to Safety (IITS) or as Items Important to Waste Isolation (IITWI)

To Be Determined - (A design configuration suitable for the analyses process in Exhibit 4 of AP-6.17Q has not been selected.)

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PROJECT REQUIREMENTS LIST

SECTION 2

ALL ACTIVITIES NOT SELECTED

AS QUALITY ACTIVITIES FOR THE QAL

(MAY CONTAIN ACTIVITIES ASSOCIATED WITH IITS OR IITWI)

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Project Requirements List Section 2 -
All Activities NOT Selected as Quality Activities for the QAL
(May Contain Activities Associated With IITS or IITWI)

Activity	: Reference Information Base (Administrative Tasks)
WBS	: 1.2.1.3.3
SCP Reference	: N/A
Description	: Administrative tasks related to RIB development (PCA 1.0, Task 1.2)
Assignment	: PRL Sec. 2
Bases Info. Ref	: WBS Dictionary; SNL WP90 12133, Rev. 0, 4/19/90
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Supporting Calculations for Postclosure Performance Analyses (Scoping studies)
WBS	: 1.2.1.4.7
SCP Reference	: N/A
Description	: Preliminary (scoping) analyses to support design activities (PCA 1.0, Task 1.1), support of other PA WBS elements (PCA 2.0, Task 2.1), and support resolution of Issue 1.3 (PCA 3.0, Task 3.1)
Assignment	: PRL Sec. 2
Bases Info. Ref	: WBS Dictionary; SNL WP90 12147, Rev. 0, 4/19/90
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Systematic Acquisition of Site-Specific Subsurface Information (Preliminary scoping only)
WBS	: 1.2.3.2.2.2.1
SCP Reference	: 8.3.1.4.2.3
Description	: Scoping and planning activities preparatory to systematic drilling program (PCA 1.0)
Assignment	: PRL Sec. 2
Bases Info. Ref	: WBS Dictionary; SNL WP90 1232221, Rev.0, 4/19/90
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Section 2 -
All Activities NOT Selected as Quality Activities for the QAL (Continued)
(May Contain Activities Associated With IITS or IITWI)

Activity	: Radiological Studies (Radiological Monitoring Plan activities except Airborne Radionuclide, Surface Water, and Groundwater Monitoring)
WBS	: 1.2.5.4.5
SCP Reference	: N/A
Description	: All specified activities in Radiological Monitoring Plan except for water monitoring (Sec. 4.3.5) and airborne radionuclide monitoring (4.3.4)
Assignment	: PRL Sec. 2
Bases Info. Ref	: WBS Dictionary; YMP/88-14, Rev. 0
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Impacts of Offsite Installation Evaluation
WBS	: 1.2.5.5.2
SCP Reference	: 8.3.1.13
Description	: Includes all subordinate activities.
Assignment	: PRL Sec. 2
Bases Info. Ref	: WBS Dictionary; SCP 8.3.1.13
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Radiological Monitoring Program Support
WBS	: 1.2.5.6.2
SCP Reference	: 8.3.1.10
Description	: Includes all subordinate activities.
Assignment	: PRL Sec. 2
Bases Info. Ref	: WBS Dictionary; SCP Sec. 8.3.1.10
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: IITS
Revision History	: Rev. 0, 7/24/90

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PROJECT REQUIREMENTS LIST

APPENDIX A

EXEMPT ITEMS AND ACTIVITIES

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

I. ITEMS

Item	: Heliport
WBS	: 1.2.4.3
Description	: SR 3.1.1.1.3 (part of Surface Service and Utility Systems)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Site Preparation (resulting structures)
WBS	: 1.2.4.3
Description	: SR 3.1.1.2 (part of Surface Service and Utility Systems), includes following subsystems: clearing 3.1.1.2.1 grading 3.1.1.2.2 landscaping 3.1.1.2.3 fencing 3.1.1.2.4
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Mining Support Facilities
WBS	: 1.2.4.3
Description	: SR 3.2.2.2(part of Surface Facilities)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Backfill Facility
WBS	: 1.2.4.3
Description	: SR 3.2.2.3(part of Surface Facilities)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Handling and Storage Facility for Excavated Tuff
WBS	: 1.2.4.3
Description	: SR 3.2.2.4(part of Surface Facilities)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Item	: Cooled Water System
WBS	: 1.2.4.3
Description	: SR 3.2.2.6(part of Surface Facilities)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Receiving and Warehousing Facilities
WBS	: 1.2.4.3
Description	: SR 3.2.3.5(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Maintenance Facilities
WBS	: 1.2.4.3
Description	: SR 3.2.3.6(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Administration and Personnel Facilities
WBS	: 1.2.4.3
Description	: SR 3.2.3.8(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Sewage Treatment Plant
WBS	: 1.2.4.3
Description	: SR 3.2.3.14(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Training Facilities
WBS	: 1.2.4.3
Description	: SR 3.2.3.16(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Item	: Visitors Center
WBS	: 1.2.4.3
Description	: SR 3.2.3.17(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Standard Equipment
WBS	: 1.2.4.3
Description	: SR 3.2.3.20(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Concrete Batch Plant
WBS	: 1.2.4.3
Description	: SR 3.2.3.22(part of Balance of Plant)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Hoisthouse
WBS	: 1.2.4.3
Description	: SR 3.3.2.1.1.20(part of Men-And-Materials Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Hoists
WBS	: 1.2.4.3
Description	: SR 3.3.2.1.1.30(part of Men-And-Materials Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Conveyances
WBS	: 1.2.4.3
Description	: SR 3.3.2.1.1.60(part of Men-And-Materials Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Item	: Hoist ropes
WBS	: 1.2.4.3
Description	: SR 3.3.2.1.1.70(part of Men-And-Materials Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Fixtures
WBS	: 1.2.4.3
Description	: SR 3.3.2.1.2.50(part of Men-And-Materials Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Ramp surface structure
WBS	: 1.2.4.3
Description	: SR 3.3.3.1.1.10(part of Tuff Ramp)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Roadway
WBS	: 1.2.4.3
Description	: SR 3.3.3.1.2.50(part of Tuff Ramp)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Inspection and repair hoist
WBS	: 1.2.4.3
Description	: SR 3.3.7.1.1.30(part of Emplacement Area Exhaust Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Conveyance
WBS	: 1.2.4.3
Description	: SR 3.3.7.1.1.50(part of Emplacement Area Exhaust Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Item	: Hoist ropes
WBS	: 1.2.4.3
Description	: SR 3.3.7.1.1.60(part of Emplacement Area Exhaust Shaft)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Inspection and repair hoist
WBS	: 1.2.4.3
Description	: SR 3.3.8.1.1.30(part of ES Modifications for Waste Emplacement Area Air Intake)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Hoist ropes
WBS	: 1.2.4.3
Description	: SR 3.3.8.1.1.40(part of ES Modifications for Waste Emplacement Area Air Intake)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Conveyance
WBS	: 1.2.4.3
Description	: SR 3.3.8.1.1.60(part of ES Modifications for Waste Emplacement Area Air Intake)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Borehole Drilling and Lining Equipment
WBS	: 1.2.4.3
Description	: SR 3.4.3.1(part of Underground Excavations)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Item	: Shops, Warehouses, and Service Facilities
WBS	: 1.2.4.3
Description	: SR 3.4.4(part of Underground Excavations)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Excavated Tuff Handling System
WBS	: 1.2.4.3
Description	: SR 3.5.11(part of Underground Service and Utility Systems)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Backfill Handling and Placement System
WBS	: 1.2.4.3
Description	: SR 3.5.13(part of Underground Service and Utility Systems)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Materials and Supplies Handling System
WBS	: 1.2.4.3
Description	: SR 3.5.14(part of Underground Service and Utility Systems)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Maintenance Shops
WBS	: 1.2.4.3
Description	: SR 3.5.19(part of Underground Service and Utility Systems)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

Item	: Training Facility
WBS	: 1.2.4.3
Description	: SR 3.5.30(part of Underground Service and Utility Systems)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Item	: Checkpoint
WBS	: 1.2.4.3
Description	: SR 3.5.40(part of Underground Service and Utility Systems)
Assignment	: PRL Appendix A
Bases Info. Ref	: SR
Evaluation Pkg Ref	: IITS-1, IITWI-1
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

II. ACTIVITIES

Activity	: Management and Integration(except AP-6.17Q Support and non-administrative QA)
WBS	: 1.2.1.1
SCP Reference	: N/A
Description	: All subordinate activities except AP-6.17Q, QRB Support, and non-administrative QA activities.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Management and Integration (except non-administrative QA)
WBS	: 1.2.2.1
SCP Reference	: N/A
Description	: Waste Package M&I
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Management and Integration (except non-administrative QA)
WBS	: 1.2.3.1
SCP Reference	: N/A
Description	: Site M&I
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Common-to-Drilling Support
WBS	: 1.2.3.5.2.1
SCP Reference	: 8.3.1
Description	: Includes all subordinate activities.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Prototype Air Coring
WBS	: 1.2.3.5.4
SCP Reference	: N/A
Description	: Prototype work.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Deferred Site Closeout
WBS	: 1.2.3.8
SCP Reference	: N/A
Description	: Site closeout
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Management and Integration (Administrative)
WBS	: 1.2.4.1
SCP Reference	: N/A
Description	: Portion of WBS 1.2.4.1 scope dealing with project management, administration, and interaction support
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Rock Mechanics Field Testing
WBS	: 1.2.4.2.1.3
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Management and Integration
WBS	: 1.2.5.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Site Characterization Program
WBS	: 1.2.5.2.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Semi-Annual Progress Reports
WBS	: 1.2.5.2.6
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Site Recommendation Report
WBS	: 1.2.5.2.7
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Environmental Compliance
WBS	: 1.2.5.3
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Aesthetics
WBS	: 1.2.5.4.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Noise
WBS	: 1.2.5.4.4
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Land Use/Resource Lands
WBS	: 1.2.5.4.9
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Native American Interactions
WBS	: 1.2.5.4.10
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Environmental Field Work Coordination
WBS	: 1.2.5.4.11
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Socioeconomic Studies
WBS	: 1.2.5.6.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Communication and Liaison
WBS	: 1.2.5.7
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Exploratory Shaft Management, Planning, and Technical Assessment (Management and Planning Activities)
WBS	: 1.2.6.1.1
SCP Reference	: N/A
Description	: Portion of WBS 1.2.6.1.1 scope dealing with management and planning activities.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	**: Quality Assurance (Administrative QA)**
WBS	**: 1.2.6.1.2**
SCP Reference	**: N/A**
Description	**: Includes all administrative QA activities**
Assignment	**: PRL App. A**
Bases Info. Ref	**: WBS Dictionary**
Evaluation Pkg Ref	**: QAL-1**
Related Q-List Item	**: N/A**
Revision History	**: Rev. 0, 7/24/90**

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Safety Analysis
WBS	: 1.2.6.1.3
SCP Reference	: N/A
Description	: Develop safety procedures for ESF construction.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: ES-1 Hoist and Headframe
WBS	: 1.2.6.4.2
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: ES-2 Hoist and Headframe
WBS	: 1.2.6.5.2
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: ES-1 Shaft Internals and Conveyances
WBS	: 1.2.6.7.2
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: ES-2 Shaft Internals and Conveyances
WBS	: 1.2.6.7.3
SCP Reference	: N/A
Description	: Includes all subordinate activities.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Operations (except 1.2.6.8.4)
WBS	: 1.2.6.8
SCP Reference	: N/A
Description	: Includes all subordinate activities except WBS 1.2.6.8.4 Integrated Data Systems
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Management and Integration (except non-administrative QA)
WBS	: 1.2.7.1
SCP Reference	: N/A
Description	: Includes all subordinate activities except non-administrative QA.
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Climax
WBS	: 1.2.7.2.1
SCP Reference	: N/A
Description	:Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: G-Tunnel
WBS	: 1.2.7.2.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Field Operations Center
WBS	: 1.2.7.4.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Maintenance and Operations
WBS	: 1.2.7.4.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Administrative and Support Services
WBS	: 1.2.7.4.3
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: NTS Allocation
WBS	: 1.2.7.5
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Management and Integration
WBS	: 1.2.8.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Site Characterization
WBS	: 1.2.8.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Repository Site
WBS	: 1.2.8.3.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Transportation Routes
WBS	: 1.2.8.3.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Management
WBS	: 1.2.9.1.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Administrative Services
WBS	: 1.2.9.1.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: Records Management
WBS	: 1.2.9.1.4
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Project Control
WBS	: 1.2.9.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Quality Assurance (Administrative activities)
WBS	: 1.2.9.3
SCP Reference	: N/A
Description	: Includes all subordinate administrative activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: State and Local Governments
WBS	: 1.2.10.1
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

Activity	: Payments-Equal-to-Taxes
WBS	: 1.2.10.2
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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Project Requirements List Appendix A - Exempt Items and Activities (Continued)

Activity	: University Funding
WBS	: 1.2.10.3
SCP Reference	: N/A
Description	: Includes all subordinate activities
Assignment	: PRL App. A
Bases Info. Ref	: WBS Dictionary
Evaluation Pkg Ref	: QAL-1
Related Q-List Item	: N/A
Revision History	: Rev. 0, 7/24/90

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