

TITLE

EXPLORATORY STUDIES  
FACILITIES (ESF) TUNNEL  
ACCESS CONTROL (SCPB: N/A)

NO.

TC-580-SP-0001

PAGE 1

of 9

REV.

2

DATE

8/25/94

DIST.

YUCCA MOUNTAIN PROJECT  
TECHNICAL CONTROL  
PROCEDURE

APPROVED

*Bruce G. ... For DLK*

Technical Project Officer

EFFECTIVE DATE: 09/02/94

WBS 1.2.6

QA: N/A

Revision 2: This revision supersedes TC-580-SP-0001, Starter Tunnel Portal Access Control Procedure, Revision 1, and was rewritten in it's entirety.

**FOR  
INFORMATION  
ONLY**

**UNCONTROLLED**  
3

**1.0 PURPOSE AND SCOPE**

- 1.1 Purpose - This procedure describes the methods used to administer underground access control to the North Portal of the Exploratory Studies Facility (ESF).
- 1.2 Scope - This procedure establishes the responsibilities, requirements, documentation and records submittal necessary to control ESF access.

**2.0 APPLICABILITY**

- 2.1 This procedure applies to all personnel requiring access to the ESF.

**3.0 REFERENCES**

- 3.1 MC-12.1, YMP Records Management
- 3.3 TC-581-SP-0008, Underground Blasting Safety
- 3.4 [Lesson Plan Number SH94002] General Underground Training (GUT)

APPROVED: *N/A PQA For WTG.* DATE *8/25/94*  
PROJECT QUALITY ASSURANCE MANAGER

# FOR INFORMATION ONLY

## 4.0 DEFINITIONS

- 4.1 Underground worker - An individual who regularly enters the ESF Tunnel to perform work related tasks.
- 4.2 Professional - Participant who periodically enters the ESF Tunnel in order to perform work-related tasks.
- 4.3 Visitor - Person visiting the ESF for a limited time frame who will not perform any ongoing work tasks.
- 4.4 ESF Access Approval List - A list initiated by a request from a participant organization or individual, approved and issued by the M&O Construction Manager and submitted to the Construction Department Manager for Access Control at the tunnel Portal.

## 5.0 RESPONSIBILITIES

- 5.1 Technical Project Officer (TPO) - The TPO has the overall implementation and compliance responsibility, including procedure approval.
- 5.2 Construction Department (CND) Manager - The CND Manager is responsible for implementation of this procedure including review/ approval and submittal of the ESF Access Approval List, updated changes, and providing tunnel supervision whenever personnel are underground.
- 5.3 Portal Access Controller (PAC) - The PAC is responsible for:

Controlling all personnel access to the ESF. This includes ensuring that each individual entering the ESF has obtained prior authorization, training, and has personal protective equipment (PPE) prior to granting access. Maintaining the ESF Tunnel Access Log, Exhibit II, showing all personnel entering and exiting the ESF, and the Cap Lamp And Self-Rescuer Log, Exhibit I.

- 5.4 Personnel - All personnel entering the ESF are responsible for complying with all safety practices, rules, and regulations applicable to their work task and general underground training (GUT) and informing the PAC of all exits.

## 6.0 PROCEDURE

- 6.1 Personal Protection Equipment (PPE)

6.1.1 All individuals are required to have PPE consisting of an ANSI approved hard hat, safety shoes or other approved foot protection, and safety glasses, prior to being granted access to the ESF.

**6.0 PROCEDURE****FOR INFORMATION ONLY**

6.1.2 Each person who is classified as an Underground worker or Professional is responsible for providing their own PPE and the PPE for any visitors which they are to escort.

6.1.3 Self-rescuers, lamp belt, cap lamp, and flashlight shall be obtained at the portal access control point from the PAC. All issued equipment shall be returned at time of exiting the tunnel to the PAC unless it has been assigned to the individual as permanent equipment.

6.1.5 The Cap Lamp and Self-Rescuer Log, Exhibit I, shall be completed by the PAC for all self-rescuers, lamp belt, and cap lamp assigned on a non-permanent basis to individuals.

**6.2 ESF Tunnel Access Control**

6.2.1 Individuals entering the controlled access area of ESF Tunnel must present their access card to the PAC.

6.2.2 The PAC shall verify that those individuals have an approved access card and are also on the most current authorized ESF Access Approval List.

- **GREEN** - Underground Worker (Unlimited access),
- **YELLOW** - Professional (Restricted from passing beyond the third deck of TBM),
- **WHITE** - Visitor (Limited to the same level as the escort)

6.2.3 Individuals, other than those with white cards, who are not on the current ESF Access Approval List and/or who do not have an access card shall be denied access.

Note: Access Color Coded Cards are issued after obtaining required GUT training in accordance with Reference 3.5 and task specific training, as applicable.

6.2.4 Following verification of the above, the PAC shall complete the Tunnel Access Log, Exhibit II, instructions.

6.2.5 The CND Manager may limit the entry of personnel going underground due to operational or safety and health reasons.

**6.0 PROCEDURE****FOR INFORMATION ONLY****6.3 ESF Tunnel Access Privileges**

6.3.1 CND Manager has the authority to grant or withdraw access privileges to the ESF.

6.3.2 Access privileges may be withdrawn for the following reasons, but not limited to;

- Being in an unauthorized area,
- Violation of safety and health regulations and,
- Infractions of this procedure.

**6.4 Visitors to the ESF Tunnel**

6.4.1 An individual holding either a green card or yellow card who is on the controlled ESF Access Approval List may escort up to two visitors. Escorting personnel shall ensure their visitors have required PPE.

6.4.2 Visitors shall complete required "Visitor Training" and obtain a Visitor Access Card (White) in accordance with Reference 3.5.

6.4.3 The visitor(s) shall remain with their escort. The escort is responsible for ensuring all visitors have and properly use their safety and health equipment while in the ESF. The escort shall ensure their visitor(s) remain in visual/verbal contact at all times.

**6.5 Evacuation**

Evacuation shall be accomplished in accordance with Reference 3.3 and/or as described in the GUT for normal underground operations.

**6.6 Records Submittal**

The CND is responsible for maintaining the records identified in Section 7.3 in accordance with Reference 3.1.

**7.0 RECORDS**

7.1 QA Records - There are no Lifetime or Non-permanent QA records generated by this procedure.

7.2 Project Records - The following project records are generated by this procedure:

- Cap Lamp and Self-Rescuer Log
- Tunnel Access Log

# FOR INFORMATION ONLY

## 8.0 EXHIBITS

- 8.1 Cap Lamp and Self-Rescuer Log, Exhibit I (Sample Format)
- 8.2 Tunnel Access Log and Instructions, Exhibit II (Sample Format)
- 8.3 Revision History, Exhibit III





## EXHIBIT II

## ESF TUNNEL ACCESS LOG INSTRUCTIONS

Page 2 of 2

<u>Instruction Number</u>	<u>Description</u>
1.	Enter the date.
2.	Enter the shift.
3.	After verifying that an individuals' name is on the controlled access list, and either a (Yellow/Green) access card has been presented, enter the individuals' name. If the individual is providing escort of a visitor(s), and the visitor(s) has a (White) access card, enter the name(s) directly below the escort.
4.	Enter the applicable organization of the individual.
5.	Enter a check in the applicable column reflecting the individual as either a visitor or is not a visitor.
6.	If an individual makes multiple exits and entry during a work shift, a check shall be entered which reflects the individuals' current access status.

Note: Additional "In/Out" sequence blocks are provided for this purpose.

FOR INFORMATION ONLY



## EXHIBIT III

## REVISION HISTORY

<u>REVISION</u>	<u>ICN</u>	<u>REASON FOR CHANGE</u>
0		Initial issue.
1		Changes made to include visitor training and training documentation.
2		A complete rewrite of the procedure to further clarify the implementation process and controls for access to ESF.

FOR INFORMATION ONLY

## Labor

## 29

PART 1926

Revised as of July 1, 1992

## § 1926.800

with paragraphs (b) and (c) of § 1926.103 of this part.

(3) *Designated person.* At least one designated person shall be on duty above ground whenever any employee is working underground. This designated person shall be responsible for securing immediate aid and keeping an accurate count of employees underground in case of emergency. The designated person must not be so busy with other responsibilities that the counting function is encumbered.

(4) *Emergency lighting.* Each employee underground shall have an acceptable portable hand lamp or cap lamp in his or her work area for emergency use, unless natural light or an emergency lighting system provides adequate illumination for escape.

(5) *Rescue teams.* (i) On jobsites where 25 or more employees work underground at one time, the employer shall provide (or make arrangements in advance with locally available rescue services to provide) at least two 5-person rescue teams, one on the jobsite or within one-half hour travel time from the entry point, and the other within 2 hours travel time.

(ii) On jobsites where less than 25 employees work underground at one time, the employer shall provide (or make arrangements in advance with locally available rescue services to provide) at least one 5-person rescue team to be either on the jobsite or within one-half hour travel time from the entry point.

(iii) Rescue team members shall be qualified in rescue procedures, the use and limitations of breathing apparatus, and the use of firefighting equipment. Qualifications shall be reviewed not less than annually.

(iv) On jobsites where flammable or noxious gases are encountered or anticipated in hazardous quantities, rescue team members shall practice donning and using self-contained breathing apparatus monthly.

(v) The employer shall ensure that rescue teams are familiar with conditions at the jobsite.

(h) *Hazardous classifications—(1) Potentially gassy operations.* Underground construction operations shall be classified as potentially gassy if either:

(i) Air monitoring discloses 10 percent or more of the lower explosive limit for methane or other flammable gases measured at 12 inches (304.8 mm)  $\pm$  0.25 inch (6.35 mm) from the roof, face, floor or walls in any underground work area for more than a 24-hour period; or

(ii) The history of the geographical area or geological formation indicates that 10 percent or more of the lower explosive limit for methane or other flammable gases is likely to be encountered in such underground operations.

(2) *Gassy operations.* Underground construction operations shall be classified as gassy if:

(i) Air monitoring discloses 10 percent or more of the lower explosive limit for methane or other flammable gases measured at 12 inches (304.8 mm)  $\pm$  0.25 inch (6.35 mm) from the roof, face, floor or walls in any underground work area for three consecutive days; or

(ii) There has been an ignition of methane or of other flammable gases emanating from the strata that indicates the presence of such gases; or

(iii) The underground construction operation is both connected to an underground work area which is currently classified as gassy and is also subject to a continuous course of air containing the flammable gas concentration.

(3) *Declassification to potentially gassy operations.* Underground construction gassy operations may be declassified to Potentially Gassy when air monitoring results remain under 10 percent of the lower explosive limit for methane or other flammable gases for three consecutive days.

(1) *Gassy operations—additional requirements.* (1) Only acceptable equipment, maintained in suitable condition, shall be used in gassy operations.

(2) Mobile diesel-powered equipment used in gassy operations shall be either approved in accordance with the requirements of 30 CFR part 36 (formerly Schedule 31) by MSHA, or shall be demonstrated by the employer to be fully equivalent to such MSHA-approved equipment, and shall be operated in accordance with that part.

Code of Regulations

"ENCLOSURE"

3

Code



## Appendix 7

### **AGREEMENT CONCERNING THE NUCLEAR REGULATORY COMMISSION ON-SITE REPRESENTATIVE FOR THE REPOSITORY PROJECTS DURING SITE CHARACTERIZATION**

The purpose and objective of the on-site representative (OR), as identified in Section 1 of the Procedural Agreement, is to serve as a point of prompt informational exchange and consultation and to preliminarily identify concerns about investigations relating to potential licensing issues.

This appendix is intended to supplement the base agreement and to detail the guidelines which will govern interaction between the NRC OR, including any NRC personnel assigned to the OR, and DOE contractor personnel (prime and sub) through the project's Regulatory Interactions Branch of the Regulatory and Site Evaluation Division. Any interactions between the OR and DOE, its contractors, or subcontractors identified in this appendix will not constitute interactions within the intent of Section 2 of the Procedural Agreement and therefore will not require the preparation of written reports and will not be subject to State/Tribal and public notification and participation or schedule requirements of Section 2 of the Procedural Agreement. The interactions of the OR with DOE and its contractors and subcontractors are not intended to interfere with or replace other channels of NRC/DOE communications and procedures for information release identified in Sections 2, 3A, and 3B of the this agreement and Sections 2, 3, 7, and 8 of the Procedural Agreement.

The following points are agreed to:

1. The OR can attend any meetings on-site or off-site dealing with technical questions or issues related to work required as part of site characterization (e.g., any items to be covered in Site Characterization Plans under the Nuclear Waste Policy Act, as amended) following notification of the cognizant DOE project representative responsible for the meeting as discussed below. Such notification shall be by memorandum, telephone or personal contact and will be given at least 24 hours in advance where DOE has provided adequate prior notification to the OR. The meetings may involve solely DOE or solely DOE's contractors (prime and sub), or any combination of DOE with their contractors.

If objections to the OR attendance are voiced for any reason, the reason should be specified. Such objections will be infrequent and will be exceptions to the rule. If the OR does not agree with DOE objections, it will be raised to a higher management level for resolution. If resolution cannot be achieved, the OR will not attend the meeting in question.

2. The OR may communicate orally (in person or by phone) with persons employed by DOE, DOE's prime contractors or the prime's subcontractor, (on-site or off-site), providing that the following procedures are followed. If practicable, the OR will arrange for all individual sessions with prime contractor and subcontractor staff by contacting the DOE YMPO Regulatory Interactions Branch Chief or designated DOE staff member. If they cannot be contacted, the OR will attempt to contact the proper prime contractor, section, or department manager. As a minimum, the OR will give timely notification of all such sessions to DOE and the affected

contractor or participant(s) management as soon as possible. The OR will avoid discussions with personnel when it would appear to disrupt important duties and will seek to schedule meetings at a mutually convenient time. It is at the option of DOE, in consultation with participant management, as to whether or not a staff member, supervisor, or third party is to be present. No record of such discussions is required; however, questions that are raised or other issues that arise as a result of these interactions will be reported by the participant to the YMPO Regulatory Interactions Branch Chief, or the NRC Repository Licensing and Quality Assurance Project Directorate, as appropriate.

When NRC headquarters staff is temporarily assigned to the OR office, the NRC Director, Repository Licensing and Quality Assurance Project Directorate, or designee, will notify DOE's Chief of the Regulatory Integration Branch of the reassignment at least one week prior to the reassignment.

3. The DOE project office, DOE prime contractors, and their subcontractors will provide the OR access to records which would be generally relevant to a potential licensing decision by the Commission as follows. Upon request by the OR, DOE or the DOE contractor or subcontractor shall provide:  
1) copies of any records of data; 2) records which document the analyses, evaluations, or reduction of data; or 3) records which contain information deduced by reason. These records will be made available to the OR, after the documentation has been reviewed and approved in accordance with the appropriate project office administrative procedure. Records that have not been reviewed and approved by the project office shall be made available for viewing, but not to copy or to retain, at any stage of completion. Requests by the OR for release of such records shall be made through and authorized by the YMPO Regulatory Interactions Branch Chief or staff.
4. Copies of pre-decisional and preliminary drafts of documents required by the Nuclear Waste Policy Act of 1982 as amended, or related to prelicensing activities, which have not been approved by DOE, will not be provided to the OR without DOE approval. Documents of this type may be made available by authorized DOE personnel, for review in DOE or DOE contractor offices. Such documents may not be authorized as available by a DOE contractor alone. Any such documents made available are for the use of the OR and shall not be placed in any NRC public document room.
5. The OR does not have the authority to direct DOE, its contractors or subcontractors to perform any work. Any formal identification of questions or issues for investigation by DOE that could result in contractor or subcontractor work must be formally presented to DOE through the NRC Repository Licensing and Quality Assurance Project Directorate in writing.
6. The OR will attend on-site meetings upon request by the DOE project office or prime contractor on-site whenever possible. The OR will provide any records which would normally be available under 10 CFR Part 2.790 of the

Commission's regulations to project participants upon request to copy. If convenient, copies of such records will be provided by the OR.

7. The OR shall be afforded access to the site, research facilities, and other contractor and subcontractor areas to observe testing or other data gathering activities, in progress, as part of site characterization subject to compliance with the applicable requirements for identification, and applicable access control measures for security, radiological protection and personnel safety, provided that such access shall not interfere with the activities being conducted by DOE or its contractors and that any discussions conducted during such access shall comply with Point 2 above.

Such access shall be allowed as rapidly as it is for DOE or DOE contractor employees upon display of an appropriate access identification badge, or, if badging is not possible for national security reasons, upon prior notification to DOE or cognizant contractor supervisory personnel (by memorandum, telephone, or personal contact). When an access identification badge is available to DOE or DOE's contractors and subcontractors on a routine basis, it shall be made available to the OR upon completion of the required security clearances and appropriate radiological and personnel safety training. DOE will ensure that any training required is provided to the OR.

8. NRC can videotape or photograph any inanimate objects or geologic features associated with site characterization activities at the Yucca Mountain Site consistent with Nevada test site security. Additionally, upon request from the OR, DOE will provide NRC videotape footage of personnel performing site characterization activities. If requested, the OR and other NRC staff will be permitted to accompany DOE during the videotaping.
9. DOE YMPO may provide, to the NRC OR, the information required to execute DOE responsibilities under Appendix 7 of this agreement by informal note, by telephone, or by personal contact. Such communications shall adhere to the procedures for communication and information release specified elsewhere in the Procedural Agreement and this agreement.