



Yucca Mountain Site Characterization Project

PROCEDURE

**TRACERS, FLUIDS, AND MATERIALS DATA REPORTING AND
MANAGEMENT**

YAP-2.8Q

Revision 2, ICN 0

Effective Date: 01/09/98

Approval(s): S. J. Brocoum (signature on file) 12/10/97
S.J. Brocoum Date
Assistant Manager for Licensing

Concurrence(s): D. G. Horton (signature on file) 12/16/97
D.G. Horton Date
Director, Office of Quality Assurance

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 2 of 16

CHANGE HISTORY

<u>Revision Number</u>	<u>Interim Change No.</u>	<u>Effective Date</u>	<u>Description of Change</u>
0		05/08/95	Initial Issue - Implementation of response to CAR YM-94-033.
1		01/05/96	Complete revision and implementation of response to CAR YM-94-033.
2		01/09/98	Complete revision to incorporate refinements in the tracers, fluids, and materials reporting process and to be in compliance with QAP 5.1, <i>Quality Assurance Program Procedures</i> .

YMP Procedure**Title:** Tracers, Fluids, and Materials Data Reporting and Management**Procedure No.:** YAP-2.8Q/Rev. 2/ICN 0

Page: 3 of 16

1.0 PURPOSE

This procedure establishes the responsibilities and process to generate, record, and manage quality affecting and non-quality affecting data on tracers, fluids, and materials (TFMs) use/recovery and inadvertent and unauthorized releases. This procedure also establishes the process for recording TFM use to aid in future site impact assessments.

This procedure provides a process for implementing technical and management requirements with respect to TFM data reporting and management that are necessary to minimize to the extent practical adverse effects on site characterization data and on *Q-List*, YMP/90-55Q, items (including natural barriers). This procedure implements quality assurance (QA) requirements as prescribed in the *Quality Assurance Requirements and Description* (QARD), DOE/RW-0333P, Section 2.0.

2.0 APPLICABILITY

This procedure applies to Yucca Mountain Site Characterization Project (YMP) personnel, including the Yucca Mountain Site Characterization Office and all Affected Organizations, contractors, and consultants who:

- work within the Test and Waste Isolation Evaluation Zone (TWIEZ) (see Attachment 1); or
- plan, evaluate, conduct, control, monitor, or record field activities, including TFM use/recovery; or
- plan, design, construct, emplace, dismantle, recover, or operate facilities, equipment, and items within the TWIEZ and/or in any other areas where YMP site characterization field activities are conducted.

Evaluation and approval of the use of TFMs within the YMP TWIEZ is outside the scope of this procedure. TFMs are evaluated in accordance with M&O procedure NLP-2-0, *Determination of Importance Evaluations*.

This procedure does not address material reporting that may be needed for any other purposes, such as required by the *Regulated Materials Management Plan*, YMP/91-35, and its implementing procedures for the use of radioactive materials, AP-6.7, *Authorization for the Use of Radioactive Materials or Ionizing Radiation Producing Equipment*.

This procedure does not apply to the implementation of restrictions on TFM use that result from Determination of Importance Evaluations (DIEs). The implementation of restrictions is covered by Job Packages, Field Work Packages, design specifications, and other implementing documents governing the performance of field activities.

This procedure does not apply to TFMs committed to the site prior to the initial approval of this procedure or to TFM data submitted prior to the effective date of Revision 2.

This procedure does not replace, but is in addition to, the requirements of any hazardous regulated or radioactive material procedure(s). Environmental safety and health or other requirements to mitigate, clean up, or recover such materials from the work place are not superseded by this procedure.

3.0 DEFINITIONS

Terms in this procedure are used as defined in the QARD Glossary. The following definitions are specific to this procedure.

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 4 of 16

- 3.1** *Committed TFMs*—Tracers, fluids, and materials expected to remain as part of the potential postclosure repository.

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 5 of 16

3.2 DIE—An evaluation of YMP facility designs, test plans, and field activities that determines potential test interference and potential impacts on *Q-List* items (including natural barriers). DIES establish restrictions on TFM use/recovery in order to minimize to the extent practical adverse effects on the potential repository.

3.3 Exempted TFMs—TFMs that are not required to be reported in accordance with this procedure. The following TFMs are exempted from reporting if they are recovered from the site prior to repository closure:

- Articles for personal use
- Clothes
- Fluids used for normal operation and/or maintenance of tools, equipment, and vehicles
- Food and drink for human consumption
- Furniture
- Instrumentation
- Items used directly or indirectly for personnel accommodations (e.g., portable toilets, trash containers, etc.)
- Materials used for sanitary purposes, except when they are used in direct contact with the ground and are not recovered
- Naturally occurring fluids (including water) and materials
- Personal protective equipment
- Tools (whether motorized or not)
- Utensils for personal use
- Vehicles (whether motorized or not) for the transport of personnel and/or TFMs, with the exception of spills/releases from those vehicles which may be reportable subject to the applicable DIE(s).

NOTE: DIES may modify the exemptions from TFM reporting listed above and/or grant additional exemptions. The Responsible Reporting Organizations (RRO) may choose to report these exempt items when viewed necessary.

3.4 Field Activity—Any activity at the Yucca Mountain site and in any other site areas where characterization is conducted for the YMP, including, but not limited to, the performance of site characterization testing; the construction, emplacement, and operation of facilities and items; the dismantling and recovery of facilities and items; environmental, archaeological, meteorological, and cultural resources field studies and monitoring; environmental mitigation, remediation, and reclamation; and public outreach activities.

3.5 Fluids—Physical substances that are capable of flow, such as gases and liquids (including water), certain plastic solids, and mixtures of solids and liquids (excluding mixtures that solidify, such as concrete), other than tracers, that are used during site characterization field activities.

3.6 Materials—Physical substances, solid or semisolid, other than tracers and fluids that are used during site characterization field activities.

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 6 of 16

3.7 Reportable TFMs—All committed TFMs (actual use and spills) within the TWIEZ or in other areas where YMP-related activities are conducted. TFMs in direct contact with the ground (above or below the surface), or within the Exploratory Studies Facility (ESF) are reportable unless exempted by DIE(s), or this procedure. The following are examples of reportable TFMs:

- Water (either pumped or hauled by truck) that is committed to the site within the TWIEZ
- Ground support materials (e.g., rock bolts, steel sets, shotcrete)
- Chemical compounds committed to the site during testing activities.

3.8 Responsible Managers—Managers in Responsible Planning Organizations (RPO) or RRO who are responsible for ensuring that design, test plan, and field activity information, including TFM reports, are provided in accordance with this procedure.

3.9 RPOs—The YMP organizations responsible for submitting planned TFM requests for a field activity (e.g., site characterization test plans, ESF design packages, field activity information) to the Safety Assurance (SA) Manager for evaluation. These organizations include, but are not limited to the following:

- Environmental sciences: Organizations planning TFM use/recovery for reclamation implementation and reclamation studies.
- ESF design: Organizations planning TFM use/recovery for ESF construction and operation (as per design documents).
- Field test management organization: Organizations planning TFM use/recovery for ESF and Surface-Based Testing (SBT) test-related activities.
- Site construction and operations organizations: Organizations planning TFM use/recovery for field construction, construction-related, or site operations and maintenance activities (e.g., surface and subsurface construction, maintenance and logistic operations, SBT drilling/construction organizations, etc.).

3.10 RROs—The YMP organizations having ultimate responsibility for actual TFM use/recovery for field activities. These organizations include but are not limited to the following:

- Site construction and operations organizations: Organizations performing field construction, construction-related, or site operation and maintenance activities (e.g., surface and subsurface-construction organizations, SBT facility operations, SBT drilling/construction organizations, maintenance and logistics operations).
- Environmental sciences: Organizations performing reclamation activities that involve the use/recovery of TFMs.
- Field test management organizations: Organizations coordinating the conduct of ESF and SBT site characterization testing and testing-related activities.

NOTE: Reportable TFMs from the Principal Investigator or the other testing organizations/individuals are reported in accordance with this procedure by field test management organizations.

3.11 Tracers—Identifiable substances that are added in trace quantities to air, water, and other media that are used during site characterization, construction activities, and other field activities. Tracers are used to tag or label air, water, and other media that are used during site characterization to distinguish between them and air, water, and other media that occur naturally.

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 7 of 16

3.12 TWIEZ—An area that encompasses the Conceptual Controlled Boundary and extends to the northern side of Yucca Wash and to the western side of Windy Wash (see Attachment 1). This zone, which

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

includes the conceptual controlled area and an area upgradient of the conceptual controlled area, is expected to bound the area from where surface-water infiltration could affect a potential repository.

4.0 RESPONSIBILITIES

4.1 The Assistant Manager for Licensing is responsible for the preparation, change, and approval of this procedure.

4.2 The following organizations or positions are responsible for activities identified in Section 5.0 of this procedure:

- a) RPO Manager
- b) SA Manager
- c) RRO Manager
- d) YMP Personnel

5.0 PROCESS

A brief overview of this process is depicted in the flowchart shown in Attachment 2, YAP-2.8Q Flowchart. Acronyms and abbreviations used in this procedure are defined in Attachment 3, Acronyms and Abbreviations, and/or in the flowchart legend.

PROCESS OUTLINE

	<u>Page</u>
5.1 PLANNED TFM USE	6
5.2 TFM EVALUATION	7
5.3 CHANGES TO PLANNED TFM USE	7
5.4 TFM REPORTING	7
5.5 UNIVERSAL YMP PERSONNEL RESPONSIBILITY	8

5.1 PLANNED TFM USE

RPO Manager:

- a) Ensure that TFMs (except exempted TFMs) have been evaluated by the SA Department prior to use in any YMP-related activity.
- b) Provide specific information regarding the planned use of TFMs to the SA Manager.

NOTE: Planned TFM use information should include the name/identification of the TFM, its compositional information (e.g., Material Safety Data Sheet [MSDS]), and a detailed description of its planned use—including use location(s) and anticipated quantities to be used and removed. Information on planned TFM use is preliminary in nature, therefore, it is not considered to be subject to the requirements of the QARD. As such, planned TFM use information may be provided to the SA Manager verbally or in writing. At the discretion of the RPO Manager, Attachment 5 may be used to submit planned TFM use information.

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

5.2 TFM EVALUATION

SA Manager:

Evaluate planned TFM use per NLP-2-0, *Determination of Importance Evaluations*.

NOTE: If necessary, the SA Manager may request additional TFM-related information from the RPO to ensure that potential, suitable TFM controls can be established. If the planned TFM use is bounded by an existing DIE, the SA Manager may document the evaluation via correspondence to the RRO.

5.3 CHANGES TO PLANNED TFM USE

5.3.1 RPO/RRO Manager:

Submit changes in planned TFM use to the SA Manager for evaluation in accordance with Subsection 5.1. Include changes which occur after the start of a field activity and impact a design, test plan, or field activity that is not bounded by the scope of the TFM evaluation in the applicable DIE (e.g., with respect to specific TFMs, usage, quantity, location, and time).

5.3.2 SA Manager:

Evaluate planned TFM changes in accordance with Subsection 5.2.

5.4 TFM REPORTING

5.4.1 RRO Manager:

- a) Track and record all actual TFM use, recovery, inadvertent spills, and unauthorized releases (including TFM use associated with cleanup and recovery activities).

NOTE: Records of TFM use and recovery (i.e., tracking records) are generated by the RRO Manager in accordance with applicable RRO procedures and serve as balance sheets that document the quantities of individual TFMs committed to the site. In some cases, TFM-related data in these records are not necessarily the same data entered in a TFM report (e.g., water balance records generated by the Constructor). In other cases, the TFM reports can be used to completely document TFM usage (e.g., when there are no associated TFM balance sheets). The purpose of RRO tracking records is to provide evidence that the quantities of TFMs that have been committed to the site are minimized to the extent practical.

- b) Generate TFM reports in accordance with Attachment 5, or use a comparable form, to document committed TFMs and any unrecovered quantities of inadvertent spills and/or unauthorized releases.

NOTE: In a TFM report, "use" means that the TFM has been committed to the site, and "recovery" refers to recovered quantities of TFMs previously "reported" as committed to the site. Any spills/releases recovered in their entirety are not required to be reported by this procedure, although they still may be reportable under other procedures (e.g., the reporting of hazardous material spills). If there is uncertainty as to whether a spill/release has been recovered in its entirety, the TFM report should document the best estimate of the unrecovered quantity.

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 10 of 16

- c) Sign completed TFM reports or comparable form and transmit them to the SA Manager within three months after completion of the field activity associated with the TFM usage.

NOTE: For field activities lasting longer than three months, it is recommended that interim TFM reports be submitted within six months of TFM emplacement (or recovery, as appropriate).

5.4.2 SA Manager:

- a) Review TFM reports for completeness in accordance with Attachment 5.

NOTE: This review primarily verifies the appropriate level of detail. While compliance with DIE requirements may be checked, verification of compliance is not the intent of the review. The RRO Manager is responsible for ensuring compliance with DIE requirements (i.e., compliance with field implementing documents such as specifications, Job Packages, Field Work Packages, etc., that contain DIE requirements).

- b) Request additional TFM report information, corrections, and/or resubmittals from the applicable RRO Manager, as necessary.
- c) Sign acceptable TFM reports.
- d) Submit approved TFM reports to the Records Processing Center (RPC) in accordance with Section 6.0 of this procedure.

NOTE: The SA Manager maintains an administrative TFM database that is not subject to the requirements of the QARD. This database is maintained for informational and tracking purposes only and cannot be used as a direct source of qualified data. Only individual, approved TFM reports are to be used as a source of qualified TFM data.

5.5 UNIVERSAL YMP PERSONNEL RESPONSIBILITY

YMP Personnel visiting or working within the TWIEZ and/or in any other site areas where site characterization field activities are conducted for the YMP:

- a) Be cognizant of activities performed by non-escorted and non-YMP personnel (including the use of non-YMP equipment).
- b) Report any inadvertent spills or unauthorized TFM releases in accordance with Paragraph 5.4.1 if the release is not reported by an RRO.

6.0 RECORDS

The documents listed in Subsections 6.1 through 6.3 shall be collected and submitted to the RPC as individual QA records in accordance with AP-17.1Q, *Record Source Responsibilities for Inclusionary Records*, or other applicable procedures.

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 11 of 16

6.1 LIFETIME QA RECORDS

TFM reports of actual TFM use and inadvertent and unauthorized releases, and of actual TFM recovery, including cleanup and remediation, if applicable

SA correspondence documentation related to the evaluation of planned TFM usage

NOTE: TFM evaluation records are controlled in accordance with NLP-2-0.

6.2 NONPERMANENT QA RECORDS

RRO TFM Tracking Records, if applicable, as described in Paragraph 5.4.1a)

6.3 NON-QA INCLUSIONARY RECORDS

None

6.4 EXCLUSIONARY MATERIAL

None

7.0 REFERENCES

7.1 DEVELOPMENTAL REFERENCES

- a) QAP 5.1, *Quality Assurance Program Procedures*
- b) *Quality Assurance Requirements and Description*, DOE/RW-0333P

7.2 IMPLEMENTATION REFERENCES

- a) AP-6.7, *Authorization for the Use of Radioactive Materials or Ionizing Radiation Producing Equipment*
- b) AP-17.1Q, *Record Source Responsibilities for Inclusionary Records*
- c) *Q-List*, YMP/90-55Q
- d) *Regulated Materials Management Plan*, YMP/91-35
- e) NLP-2-0, *Determination of Importance Evaluations*

8.0 ATTACHMENTS

Exhibits attached to this procedure are controlled and distributed as full-size pages separate from this procedure and may be copied for use when implementing this procedure.

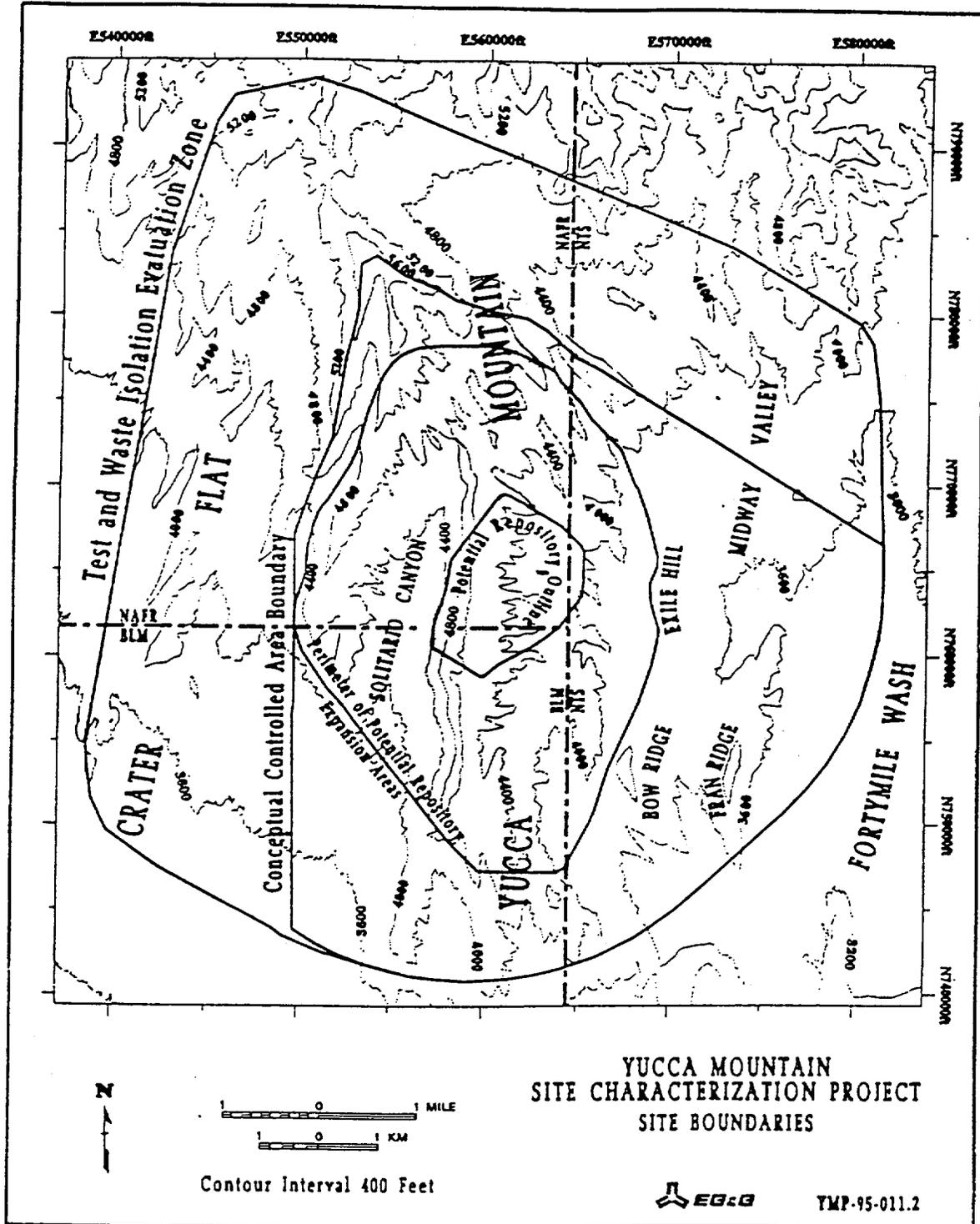
Attachment 1 - Test and Waste Isolation Evaluation Zone

Attachment 2 - YAP-2.8Q Flowchart

Attachment 3 - Acronyms and Abbreviations

Attachment 4 - Supporting Detail

Attachment 5 - Tracers, Fluids, and Materials Report (Exhibit YAP-2.8Q.1)

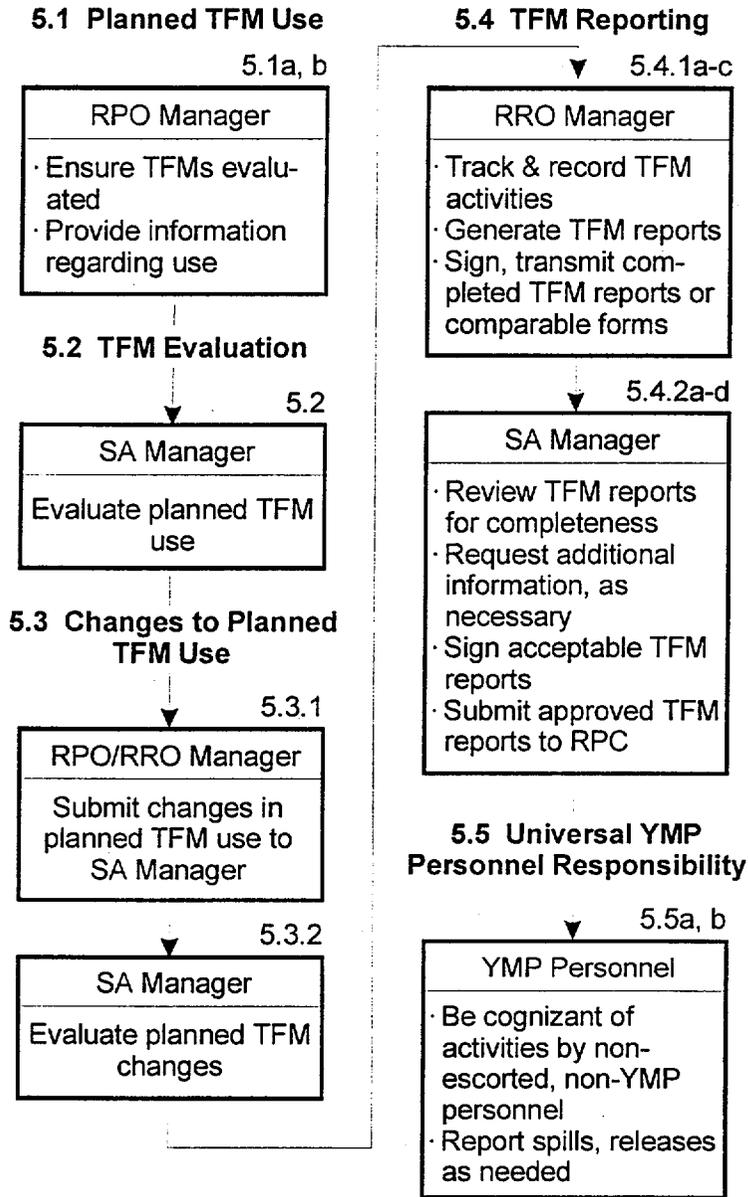


Attachment 1 - Test and Waste Isolations Evaluation Zone

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0



LEGEND

- DIE Determination of Importance Evaluation
- RPC Records Processing Center
- RPO Responsible Planning Organization
- RRO Responsible Reporting Organization
- SA Safety Assurance
- TFM Tracers, Fluids, & Materials
- YMP Yucca Mountain Site Characterization Project

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 14 of 16

DIE	Determination of Importance Evaluation
ESF	Exploratory Studies Facility
QA	Quality Assurance
QARD	Quality Assurance Requirements and Description
RPO	Responsible Planning Organization
RRO	Responsible Reporting Organization
SA	Safety Assurance
SBT	Surface-Based Testing
TFM	Tracers, Fluids, and Materials
TWIEZ	Test and Waste Isolation Evaluation Zone
YMP	Yucca Mountain Site Characterization Project

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 15 of 16

SUPPORTING DETAIL

REPORTING OF PLANNED TFM USE/RECOVERY

NOTE: The timing of Paragraph 5.1.1 and the type of TFM information provided should be determined through discussions between the SA Manager and the RPO Manager (or their designees). The information may be provided iteratively and in parallel with DIE preparation (see Subsection 5.2) and may involve design and planning changes that occur before the start of the field activity.

The types of TFM information usually provided for DIEs are:

- a) Data on the planned TFM use (e.g., planned TFM reports, MSDS), including estimated amounts and location of application
- b) Descriptions of planned TFM storage, including planned storage methods, types of containers, maximum quantities to be stored, and sizes of storage containers
- c) Descriptions of the chemical composition of TFM, if not commonly known (e.g., chemical formula, concentration in solution, or references to where this information is available)
- d) Descriptions of expected and potential accidental composition or phase changes (e.g., from liquid to solid or gaseous state)
- e) Descriptions of any mixing of fluids with other fluids or materials (excluding with or between naturally occurring fluids and materials)
- f) Information on any environment, safety, and health requirements for planned TFM use, if applicable.

TFM DATA FROM SITE AREAS OUTSIDE THE TWIEZ

TFM reports of actual use TFM, emplaced outside the TWIEZ are not needed to evaluate potential waste isolation impacts. However, this data may be important for the evaluation of potential test-to-test and/or construction-to-test interferences because the potential for test interferences is dependent on the proximity of the testing activity to the TFM emplacement location. As a result, the SA Department also evaluates (per NLP-2-0) planned TFM use for YMP activities to be conducted outside of the TWIEZ. DIEs will specify the applicable TFM reporting requirements associated with YMP activities outside of the TWIEZ, and the DIE requirements will be conveyed by appropriate field implementing documents (e.g., specifications, Job Packages, and/or FWPs).

YMP-221-R2
01/09/98

**YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
TRACERS, FLUIDS, AND MATERIALS REPORT**

1 QA: Planned use - QA: N/A
 Actual use - QA: L

Page _____ of _____

2 Applicable Approval Document: _____

3 Reference No.: _____

4 FWP/JP/TPP No. (incl. revision no.): _____

5 ACTIVITY/FACILITY TITLE: _____

6 NAME	7 UNIT OF MESURE- MENT	QUANTITIES:			11 LOCATION	12 PHYS. STATE				13 COMP. ATTACHED? (Y/N)
		8 COMMITTED	9 RECOVERED	10 REMAINS AFTER REPOSITORY CLOSURE		S O L	L I Q	G A S	P O W	

14 RPO (planned) or RRO (actual) Representative's Name (print): _____ Signature: _____ Date: _____

15 SA Representative's Name (print): _____ Signature: _____ Date: _____

(N/A for planned use/removal)

Exhibit YAP-2.8Q

YMP Procedure
Title: Tracers, Fluids, and Materials Data Reporting and Management
Procedure No.: YAP-2.8Q/Rev. 2/1CN 0

Page: 16 of 16

ELECTRONICALLY CONTROLLED COPY

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 17 of 16

Instructions for Preparation of Yucca Mountain Site Characterization Project Tracers, Fluids, and Materials Report

Enter N/A in all blocks that are not applicable.

NOTE: A different form may be used if it provides the required information.

1. Check the proper QA designation: L (for TFM actual use/spills/recovery) or N/A (for planned use), and total number of pages of all forms and attachments of this TFM report.
2. Enter the document identifier and revision level of the DIE or other document authorizing its use. Enter N/A for TFM applications that are not controlled by a pre-existing DIE (e.g., planned use, unauthorized releases).
3. Enter a unique TFM report reference number. The number should be constructed as follows:

XXXYYMMDDNN.RR

where XXX - Affected Responsible Reporting Organization code as three digits
YY - Current year as two digits
MM - Current month as two digits
DD - Current day as two digits (day report is generated)
NN - Sequence number for the day. 00 unless more than one report went out on the same day.
RR - Revision number. 00 for the original issue.

For revisions of previously submitted Reports, enter N/C in all blocks for which there is no change in the information, or enter the same information as before.

4. Enter the FWP/JP/TPP number, if applicable, including revision number. Use the revision number that was current at the time the TFM(s) was applied. A TFM report should include data for only one JP or FWP (i.e., TFM data for different JPs or FWPs should be listed in separate TFM reports). TFM data for the same JP or FWP may be split, however, into more than one TFM report.
5. Enter a brief title or description of the activities/facilities for which TFMs are being planned or reported.
6. Enter the name of the tracer, fluid, or material, using generic names or categories whenever possible, with brand name, material type, and other details provided parenthetically. Report all TFMs, regardless of quantity, in singular form.

EXAMPLES: For Rustoleum aerosol spray paint, identify as: paint (Rustoleum, aerosol)
For 7/8", 10-ft Williams #7 rock bolts, identify as: rock bolt (Williams #7, steel, 7/8" x 10').
For 20 ft. of 8" OD PVC water line, identify as: PVC pipe (20' by 8" OD).

7. Enter unit of measurement. Where practical, be consistent in using the units below. Avoid unitless descriptions (e.g., cans, bags, bottles, etc.) by using mass, weight, or volume. Use "each" when it is the only practical unit of measure (e.g., steel sets, rock bolts) and the dimensional data are available on the TFM form or as a record (e.g., drawing, specification, etc.). Traced water should be reported in terms of volume of tracer and trace concentrations (e.g., 200 gallons at 18 parts per million LiBr). Use mass units for gases. Weight should be used only when the density is provided or commonly known.

	<u>US Units</u>	<u>Metric</u>
EXAMPLES:		
mass:	pounds mass (lbm)	kilograms
volume:	gallons or cubic ft (ft ³) (not for gases)	liters (not for gases)
area:	square ft (ft ²)	square meters (m ²)
weight:	pounds force (lb _f)	newtons (n)
length:	feet (ft)	meters (m)
individual units:	each (ea)	

ELECTRONICALLY CONTROLLED COPY

YMP Procedure

Title: Tracers, Fluids, and Materials Data Reporting and Management

Procedure No.: YAP-2.8Q/Rev. 2/ICN 0

Page: 18 of 16

8. Enter quantity of each TFM planned for use or actually committed to the site. The RRO may report either the net amount (i.e., amount committed minus the amount recovered within the reporting period) or both the amount committed and the amount recovered.
9. Enter quantity of each TFM planned for recovery or actually recovered. Where the entire amount of a TFM planned for use is also planned for recovery, "all" is acceptable.
10. For actual use reports, enter the quantity that is planned or expected to remain at the site after repository closure. In most cases, the quantity remaining should equal the quantity committed (column 8). In cases where there is initially a quantity committed and subsequently a quantity removed, the quantity remaining should equal column 8 minus column 9.

For planned use reports, enter "TBR" if the TFM is expected to be removed or "DU" if the disposition is uncertain.

11. Enter the location of TFM use, spill, or recovery. Surface location should be reported using Nevada State Plane Coordinates (± 20 ft) or Universal Transverse Mercator (± 5 m). In cases where the TFM is associated with a location that has a unique identifier, the name designation of the item can be used instead of the surface coordinates (e.g., NRG-4, UZ-N64, USW TR11, etc.). This can include named trenches, boreholes, pits, pavements, and other exposures. In the case of boreholes, the depth is not required to be reported unless required to satisfy an existing QA requirement (e.g., DIE or classification analysis requirement).

Underground locations are to be reported by Station (e.g., 1,000 m for 10+00 m, 00+30 m in Alcove #5, etc.)

EXAMPLES: Report a surface fluid spill as 748, 770N or S53300E.
Report borehole grout emplacement by borehole unique identifier (e.g., NRG-4). Estimate depth of between 200 and 225 m when required).
Report underground water use as 200 gallons between Stations 23+00 and 23+50 m.

12. Check applicable physical state of TFM or component/ingredient (SOL=solid, LIQ=liquid, GAS=gas, POW=powder); leave blank if multi-component TFM and specify separately.
13. Enter "yes" if separate compositional information is attached. Compositional information may have to be requested from the manufacturer, where manufacturer information is available, report compositions to 0.1% composition. Product references may be helpful, however MSDS information is typically insufficient. Specific information on presence of fluorine (F), chlorine (Cl), bromine (Br), iodine (I), sulphur (S), nitrogen (N), or phosphorous (P) should also be provided if available.
14. The TFM report preparer prints name, signs and enters date of TFM report preparation.
15. The SA representative prints name, signs, and enters date upon completion of review, prior to forwarding report to the RPC.

DRAFT DISCLAIMER

This contractor document was prepared for the U.S. Department of Energy (DOE), but has not undergone programmatic, policy, or publication review, and is provided for information only. The document provides preliminary information that may change based on new information or analysis, and is not intended for publication or wide distribution; it is a lower level contractor document that may or may not directly contribute to a published DOE report. Although this document has undergone technical reviews at the contractor organization, it has not undergone a DOE policy review. Therefore, the views and opinions of authors expressed do not necessarily state or reflect those of the DOE. However, in the interest of the rapid transfer of information, we are providing this document for your information.