



Department of Energy  
Washington, DC 20585

MAY 19, 1994

QA

Mr. R. L. Robertson  
General Manager  
CRWMS, M&O  
TRW Environmental Safety Systems, Inc.  
2650 Park Tower Drive, Suite 800  
Vienna, VA 22180

Subject: Office of Civilian Radioactive Waste Management (OCRWM) Quality Assurance (QA) Surveillance HQ-SR-94-08 of M&O's Development and Issuance of the Multi-Purpose Canisters (MPC) Request for Proposal (RFP)

Dear Mr. Robertson:

Enclosed, please find the subject report that is a result of a recent surveillance conducted by the Headquarters Quality Assurance Division (HQAD) at your facilities in Vienna, Virginia and Charlotte, North Carolina. HQAD would like to express our appreciation for the level of cooperation received during the conduct of the activity.

Six (6) Corrective Action Requests (CARs) were initiated and sent previously under separate letter. Also, thirteen (13) recommendations are presented in the report for consideration by M&O Management.

If you have any questions, please contact Bob Clark at (202) 586-1238 or Marlin Horseman at (703) 841-0043.

Sincerely,

*R. W. Horton*  
Donald G. Horton, Director  
Office of Quality Assurance

Enclosure

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OFFICE OF  
 RADIOACTIVE WASTE MANAGEMENT  
 U.S. DEPARTMENT OF ENERGY  
 WASHINGTON, D.C.

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

<sup>1</sup>ORGANIZATION/LOCATION:  
 M&O/Vienna, VA and Charlotte, NC

<sup>2</sup>SUBJECT: The development and  
 issuance of the MPC RFP

<sup>3</sup>DATE:  
 4/4-14/94

<sup>4</sup>SURVEILLANCE OBJECTIVE: To ascertain compliance with the program and procedural requirements applicable to the process for the development and issuance of the MPC RFP.

<sup>5</sup>SURVEILLANCE SCOPE: Evaluation to include:  
 1. Assessment of the process utilized for the generation of the MPC RFP.  
 2. Verification of compliance by M&O personnel to procedures QAP-2-0, 2-1, 2-2, 2-3  
 3-0, 3-1, 3-2, 3-4, 3-5, 3-6, 3-8, 3-9, 3-12, 4-1, 6-1, 7-1 and 17-1.  
 3. Flowdown of requirements (upper-tier) into the basic elements of the MPC RFP.

<sup>6</sup>SURVEILLANCE TEAM:  
 Team Leader:  
Richard G. Peck  
 Additional Team Members:  
Rob Howard, Hugh Lentz  
Dennis Threatt, Fred Bearham

<sup>7</sup>PREPARED BY:  
R. G. Peck 3/29/94  
 Surveillance Team Leader Date

<sup>8</sup>CONCURRENCE:  
R. W. Claf 3/29/94  
 QA Division Director Date

SURVEILLANCE RESULTS

<sup>9</sup>BASIS OF EVALUATION / DESCRIPTION OF OBSERVATIONS:

See pages 2 through 12 of the report for Surveillance HQ-SR-94-08.

<sup>10</sup> SURVEILLANCE CONCLUSIONS:

See pages 13 through 15 (List of Attachments) of the report for Surveillance No. HQ-SR-94-08.

<sup>11</sup> COMPLETED BY:  
R. G. Peck 5/5/94  
 Surveillance Team Leader Date

<sup>12</sup> APPROVED BY:  
R. W. Claf 5/18/94  
 QA Division Director Date

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

Surveillance HQ-SR-94-08 was conducted using checklists designed to evaluate the process utilized by the M&O to develop and issue the Request for Proposal (RFP) for the Multi Purpose Canister (MPC). The source documents used for the development of the checklists included:

Systems Requirements Documents (SRDs)

M&O Quality Administrative Procedures (QAPs)

2-0, 2-1, 2-2, 2-3, 3-0, 3-1, 3-2,  
3-4, 3-5, 3-6, 3-8, 3-9, 3-12, 3-13  
4-1, 6-1, 7-1, 17-1

M&O Charlotte Local Procedures (CLPs)

3-1, 3-2

Technical Document Preparation Plan (TDPP) for the MPC System Design Requirements Documents (DRD)

MPC Acquisition Management and Procurement Plan

MPC Statement of Work (SOW)

Members of the Surveillance Team concentrated on the effectiveness of the process associated with the development and issuance of the MPC RFP and compliance with the QA Program requirements appropriate to that process.

**PERSONNEL CONTACTED**

The personnel contacted during the course of the surveillance are listed in Attachment 1.

**SURVEILLANCE RESULTS**

The following is a summary by QA program element of the activities evaluated.

**QA Program Element 1, Organization**

The Surveillance Team reviewed the responsibilities stipulated for the processing of the Acquisition Management and Procurement Plan the SOW, the SRDs, the DRDs, the Design Procurement Specifications (DPSs) and the RFP Package. All responsibilities

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

were consistent with the appropriate Position Descriptions. The assigned responsibilities were consistent with the task to be accomplished.

Implementation of QA Program Element 1 was considered satisfactory.

**QA Program Element 2, QA Program**

The Surveillance Team reviewed a sample of the indoctrination and training records for preparers, reviewers, and evaluators. The training records were available and satisfactory with the following exceptions:

There was no documentation available to indicate that an individual had attended indoctrination training prior to working on the MPC RFP task. However, the training documentation was completed during the surveillance. (See "Items Corrected During Surveillance" 1).

Two assigned Reading/Self Study records required for this task were not available in the training records package. This was considered a retrievability problem related to QA records. Both Reading/Self Study records were located during the surveillance. (See "Items Corrected During Surveillance" 2).

The above issue concerning availability of records was previously identified in M&O CAR 93-QV-C-093 and discussed in OCRWM Observation Report dated October 19, 1993. (See Recommendation 1).

The Surveillance Team reviewed a sample of the qualification records for preparers, reviewers, and evaluators. Qualification records were available and satisfactory with the following exception:

Two individuals did not have their education and work experience verified prior to performing work on this task. The M&O verified education and work experience for both people during the surveillance. This deficiency needs to be evaluated as part of the corrective action for CAR HQ-94-004, issued during OCRWM Surveillance HQ-SR-94-02.

During the review of qualification and training certifications, several training records were observed in the document record file. Because the certifications will become part of the document QA records package, the specific individual training records should be purged to the appropriate privileged record file. (See Recommendation 2).

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

The Surveillance Team reviewed the QAP-2-3, *Classification of Permanent Items* analyses generated for the Charlotte and Vienna M&O offices. Classifications and the associated design analyses dated July 6, 1993 and February 24, 1994 were reviewed at the Charlotte office. It appeared that the earlier classification was done for the Conceptual Design Phase of the MPC, while the latter appeared to have been done strictly for the MPC RFP. One classification was designated as "Revision 3" (July 6, 1993) and the other "Revision 0" (February 24, 1994).

A third MPC classification dated June 25, 1993, also indicated as "Revision 0" was developed for the Vienna Office", (this document appears to relate only to Systems Engineering activities). The Surveillance Team was aware procedures implemented during the June 25, 1993 time frame included both classification and work control in the same analysis. Regardless, with multiple versions of MPC QAP-2-3 classifications, it appears that improvement is warranted in the areas of design and document control as related to QAP-2-3 classification controls. (See Recommendation 3).

QAP-2-3 also requires that the M&O transmit Q-List recommendations to OCRWM following the development of the classification. The Surveillance Team found that the M&O had not transmitted the required information to OCRWM and therefore a Q-List has not been developed. This deficiency is documented on CAR HQ-94-012.

The development of work control activities was reviewed by the Surveillance Team to ascertain compliance by the M&O to the requirements of QAP-2-0, *Work Controls*. It was found that problems exist concerning the failure of the M&O to properly identify the applicable procedures for the review of the MPC Acquisition Management and Procurement Plan. The M&O generated the required work control analysis for the Plan, but failed to indicate that QAP-4-1, *Procurement Document Control*, was the appropriate implementing procedure. This problem existed from the original issuance of the QAP-2-0 analysis (November 12, 1993) through the development, review, and approval cycles which culminated on March 24, 1994. The QAP-2-0 analysis was revised to correctly indicate the proper implementing procedures after the Surveillance Team had pointed out the problem. This deficiency is documented on CAR HQ-94-009. Additionally, it was found that some confusion exists within the M&O concerning the issuance of QAP-2-0 work control analyses with Document Identifiers (DI) per QAP-3-13 and the issuance via Interoffice Correspondence (IOC). For example, Charlotte issues analyses using DIs, while Vienna uses IOCs. The Surveillance Team recommends that the M&O identify a consistent methodology for issuing QAP-2-0 analyses. (See Recommendation 4).

Implementation of QA Program Element 2 was determined to be marginal.

9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):

QA Program Element 3, Design Control

Activities involving the development of technical documents supporting the MPC RFP were evaluated. A TDPP for the MPC System DRDs was prepared to initiate the development of the MPC DPSs and subsequently the DRDs. The TDPP was prepared in accordance with QAP-3-5; however, it was generated almost three months after the actual commencement of activities performed in support of the QARD. This issue is discussed further in the "General to the Process" Section of this report. A review of the TDPP revealed that the format specified for the DRDs did not fully meet the requirements of QAP-3-5. This was corrected during the course of the surveillance by approving and issuing revision 1 of the TDPP. (See "Items Corrected During Surveillance" 3). Preparation of the TDPP was determined to be acceptable.

The MPC Subsystem DPS, the MPC Transportation Cask DPS, and the On Site Transfer and the On Site Storage DPS were reviewed to determine if the documents were prepared in accordance with QAP-3-8, *Specifications* as stated in the TDPP. The review indicated that the format met the requirements of the TDPP and that the DPSs were prepared in accordance with QAP-3-8. However, a Certification of Specification Form enhancement was identified (See Recommendation 5).

The MPC Subsystem Design Analysis, the MPC Subsystem Traceability Analysis, the MPC Transportation Cask Design Analysis, and the MPC Transportation Cask Traceability Analysis were evaluated according to the requirements of QAP-3-9, *Design Analysis*. The design analyses were prepared, checked, approved, and released as required by QAP-3-9. It was determined by the Department Manager that interdisciplinary and external reviews were not required for the design analyses due to the specifications being subjected to QAP-3-1 review. However, it was noted that there are inconsistencies in the methods used to conduct interdisciplinary and external reviews as addressed by QAP-3-8, QAP-3-9, and QAP-3-5. (See Recommendation 6). In addition to meeting the requirements of QAP-3-9, the traceability analyses were prepared, checked, reviewed, and approved in accordance with CLP-3-1, *Design Requirements Traceability*. Preparation of the design analyses was determined to be acceptable.

A flowdown of requirements from the SRDs to the DPSs was reviewed to determine if requirements accurately traced to the DPSs. It was determined by review of a sample that the appropriate requirements were correctly translated to the DPSs. It was noted that, in some cases, requirements that were specifically stated in the SRDs were translated to general requirements in the DPSs with a reference to the regulatory source. (See Recommendation 7). The flowdown of requirements from the SRDs to the DPSs was determined to be acceptable, based upon the review sample.

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

The technical documents were reviewed to determine if any of the documents had been baselined in accordance with QAP-3-4, *Baseline Controls*. No documents had been baselined at the time of the surveillance. Therefore, no determination of the acceptability of this activity could be made during the surveillance.

The Surveillance Team found that M&O Charlotte has identified 81 requirements that need To Be Verified (TBVs) during the development of the three DPSs. All TBVs are being tracked and released in accordance with CLP-3-2, *To Be Verified (TBV) and To Be Determined (TBD) Monitoring*. The Charlotte TBV/TBD form does not have a block to reference the documents that justify the release of a TBV or TBD. (See Recommendation 8). Some of the 81 Charlotte TBVs are flowdown items from the SRDs. A deficiency was identified in that a released TBV related to SRD issues will not be communicated upward until after the DPSs have been issued. Of greater concern is that there is no documented process for this upward communication and approval of released TBVs from the lower level documents (See CAR HQ-94-011).

The Surveillance Team reviewed the QAP-3-1, *Technical Document Review*, packages prepared for the following Design Procurement Specifications: the Multi-Purpose Canister (MPC) DPS; the MPC Transportation Cask (TC) DPS; and the MPC On-Site Transfer and On-Site Storage Segment (OST/OSS) DPS. The team verified that the review packages contained the Technical Document Review Notices (TDRNs), Document Review Records (DRR), copies of the design procurement specifications, and a copy of the TDPP as required by the procedure.

The Team verified that the Lead Document Preparer had identified areas of expertise for which reviewers are needed, selected reviewers, established a review schedule, established review criteria, and specified training requirements for reviewers. However, several of the reviewers had participated in a preliminary "rubber room" review prior to the initiation of the DPS QAP-3-1 review. QAP-3-1 requires the reviewers to be independent of the preparation of the document; the preliminary "rubber room" review compromised the reviewer independence (See CAR HQ-94-014). In this case it appears there were a sufficient number of other independent reviewers so that the review integrity and quality was not compromised.

The Surveillance Team verified that the Lead Document Preparer and the Cognizant Office Manager had prepared DRRs for all three design procurement specifications as required. The DRRs had a TDRN Log number assigned to each review package. However, the TDRN Log did not contain the appropriate revision status of the review notices. QAP-3-1 does not provide any guidance on control and use of the log (See Recommendation 9).



**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

The Surveillance Team reviewed a sample of DRRs generated by the reviewers for all three DPSs. Several of the reviewer supervisors had not appropriately completed Block 6 of the document review record indicating that the reviewer had completed the required reading and training and that the reviewer was properly qualified to perform the review. This deficiency was documented prior to the surveillance in M&O Corrective Action Report 93-QC-C-003.

The Surveillance Team reviewed a sample of the comment sheets from all of the QAP-3-1 reviewers. In general, reviewer comments were based on the specified review criteria. The QAP-3-1 review packages given to the reviewers contained a draft of the Requirements Traceability Analyses. The draft analyses were missing a considerable portion of the information. The Surveillance Team noted however, that the approved Requirements Traceability Analyses for the design procurement specifications had not been completed until after the QAP-3-1 review comments were turned in to the review coordinator. This background information was necessary for the preparers to complete the Requirements Traceability Analysis. One reviewer made specific comments to that effect (See CAR HQ-94-010 and Recommendation 10). The Surveillance Team recommends that the MPC DPSs be re-reviewed for Requirements Traceability Analysis during the QAP-3-1 review of the MPC DRDs and prior to the release of the MPC Design Request for Proposal.

QAP-3-1 comment resolution was in process at the time of the surveillance. The team sampled Comment Sheets and found that responses were developed for mandatory comments and the draft Design Procurement Specifications were in the process of being updated to reflect the comments. Since comment resolution was in process, not all of the Comment Sheets and Document Review Records had been signed off by the reviewers. The Surveillance Team recommends that the M&O review all DRRs to ensure that the comment resolutions have been signed off as accepted prior to submitting the QAP-3-1 records package into the records management system.

Through examination of Requirements Backup Analyses sheets prepared for the DPSs and discussions with the preparers and checkers, the Surveillance Team became concerned that some of the justification for DPS requirements, based on licensing precedent alone, may not have been adequate. The Charlotte M&O Design staff subsequently reviewed the backup analyses for all three DPSs. The design staff found three rationale in the MPC DPS that needed to include additional technical bases to substantiate the requirement. (See "Items Corrected During Surveillance" 4).

Implementation of QA Program Element 3 was considered to be marginal.

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

**QA Program Element 4, *Procurement Document Control***

The MPC RFP SOW and related review records were evaluated for compliance to the requirements of QAP-4-1, *Procurement Document Control*. The Surveillance Team identified a number of requirements that were not in the SOW; however, these requirements had been identified as missing by at least one of the QAP-4-1 reviewers. The SOW is in the "resolution of comment phase" of the document development process. The Surveillance Team determined that the QAP-4-1 review of the SOW was adequate.

The Surveillance Team also reviewed the SOW for requirements stipulated in the MPC Acquisition Management and Procurement Plan. The SOW defines the technical process, answers the plan questions, identifies the applicable references, and addresses the principal documents to be delivered. The Qualification and Evaluation Criteria will not be in the SOW, but will be part of the RFP package.

The Surveillance Team examined DRRs for the MPC System Acquisition Management and Procurement Plan. The review included representatives from the technical and quality assurance organizations as required by procedure. The Surveillance Team verified review criteria was specified prior to the review and that reviewers were assigned specific review criteria via the DRRs. The team also verified that comments were responded to and resolved on the DRRs as required by procedure.

The Surveillance Team found that DRRs from the Quality Engineering Manager and the Storage and Transportation Manager contained identical comments. After discussions with the Quality Engineering Manager and the Procurement Plan Preparer, the Surveillance Team determined that the Quality Engineering Manager did not have any comments on the procurement plan, but was in fact concurring with the Storage and Transportation Manager's redline/strikeout version. This deficiency was corrected by updating the DRRs to reflect what had actually happened. (See "Items Corrected During Surveillance" 5).

Implementation of QA Program Element 4 was considered to be satisfactory.

**QA Program Element 6, *Document Control***

The Surveillance Team reviewed the Document Control Action Requests (DCARs) for Charlotte Local Procedures CLP-3-1, CLP-3-2, and the TDPP for the MPC Design Requirements Documents. The DCARs were verified to assure they contained the information specified by QAP-6-1, *Document Control*. The Surveillance Team verified that the Document Control Instructions for CLP-3-1, CLP-3-2, and the TDPP for the MPC DRDs had receipt acknowledgement due dates specified, and verified that the local

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

document control center had received acknowledgements from individuals on controlled distribution as required by QAP-6-1. All other implementing documents M&O associated with the MPC RFP process were determined to be properly controlled.

The Surveillance Team found several deficiencies with procedure QAP-6-1. OCRWM QARD Section 5.2.2.H requires implementing documents to identify records generated during implementation; QAP-6-1 does not identify any quality assurance records that are generated as a result of the procedure. Additionally, section 17.2.1.B of the OCRWM QARD requires documents that do not meet the criteria of section 17.2.1.A, but provide objective evidence that the Quality Assurance Program is being properly executed, to be classified as non-permanent quality assurance records. As a minimum, QAP-6-1 attachments I, II, & III should be classified as non-permanent quality assurance records. Additionally, QAP-6-1 states "The procedural steps which follow are in general sequential order; actual sequence may vary." This is inconsistent with QARD section 5.2.2.C. which requires a "sequential description of the work to be performed including controls for altering the sequence...of operations." QAP-6-1 does not provide controls for varying the sequence in the procedure. These procedural deficiencies will be tracked by the corrective action associated with OCRWM CAR HQ-93-013.

Interviews with the author of QAP-3-13, *Document Identifiers*, M&O personnel, and a review of objective evidence associated with the MPC RFP indicated that implementation of QAP-3-13 is adequate. Some personnel interviewed suggested that a 26 digit document identifier consisting mostly of zeros is a cumbersome numbering system, however, the author explained that the numbering system is designed to incorporate OCRWM requirements identified in OCRWM Baseline Management Procedures and to allow for future expansion.

QAP-3-13, as written, has the provision to assign Document Identifiers (DI) to facsimile messages, speeches, newspaper articles, presentations and correspondence which are unlikely to become QA records. Authorship of QAP-3-13 has been transferred to the M&O Las Vegas Office and it is their intent to modify the Document Type Codes to simplify the process. No deficiencies were identified in this area.

Implementation of QA Program Element 6 was considered to be marginal.

**QA Program Element 7, *Control of Purchased Items and Services***

The Surveillance Team reviewed the M&O System Acquisition Management and Procurement Plan dated March 8, 1994 and approved March 24, 1994. The team verified the Plan contained in general terms what is to be accomplished, who is to accomplish the

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

tasks, how the work is to be accomplished, the use of a source evaluation board, and the technical and quality assurance requirements as required by QAP-7-1. Section 3.0 of the Procurement Plan identifies the Plan as "important to radiological safety" as required by the procedure. However, the Procurement Plan incorrectly states that a classification analysis had not been performed when in fact a QAP-2-3 analysis had been completed. (See Recommendation 12.)

QAP-7-1 requires the Procurement Plan to contain the sequence of actions and milestones necessary for the completion and preparation of the applicable documents. Although the Procurement Plan identifies the DPSs and the SOW as necessary documents for the RFP, the milestone schedule in the Procurement Plan does not identify the milestones for the preparation of the DPSs nor the SOW. The Surveillance Team determined, through discussions with the Procurement Plan Preparer and the Quality Engineering Manager, that the milestone schedules for the DPSs and the SOW had been moved to the TDPP for the Preparation of the MPC Design Requirements Documents. (See Recommendation 13.)

The activities relevant to this element were weak in the area of basic controls and the assurance that the proper program requirements were effectively and totally implemented in a timely and proper manner. The process for the preparation and issuance of the MPC RFP proceeded while being in non-compliance with the requirements of the QARD and M&O procedures. Work activities for the MPC RFP commenced somewhere around 11/8/93 and the QAP-2-0 work controls analysis was not issued in the Charlotte Office until 2/14/94 and the Vienna Office on 2/24/94. Contrary to the intended purpose of QAP-3-5 the Cognizant Office Manager documented (11/2/93) that a TDPP was not required based upon little or no rationale. Additionally, it was implied in the documentation that Design Requirements Documents (DRDs) could be prepared in accordance with QAP-3-8 or "DRD instructions". QAP-3-8 provides no procedural direction on the development of DRDs, while "instructions" for DRDs should have been placed in a TDPP as required by QAP-3-5. Note: The TDPP was eventually issued on 2/18/94. QAP-7-1 requires the Procurement Plan to be completed and approved in accordance with QAP-4-1 and that the planning be accomplished no later than the start of those procurement activities which are required to be controlled. Revision 0 of the MPC System Acquisition Management and Procurement Plan was dated March 8, 1994 and was approved on March 24, 1994. This is substantially after the start of the preparation of the DPSs and the SOW. These deficiencies are documented in CAR HQ-94-013.

Implementation of QA Program Element 7 was considered to be marginal.

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

**QA Element 17, *Quality Assurance Records***

The evaluation of this Element included a review of records associated with the MPC RFP. However, the review could only include records that were in-process and had not yet been completed records. No quality records packages had been transmitted to the Local Records Center since the MPC RFP was still in progress. The MPC RFP supporting documentation had DIs properly assigned.

Microfilm records of the review process for QAP-3-6, *Configuration Items and CI Identifiers*, Rev. 0 and QAP-13-3, Rev. 0 were retrieved by DI and reviewed by the Surveillance Team for identification, legibility, logical sequence, and authentication. No deficiencies were identified.

Implementation of QA Program Element 17 was not evaluated because of the in-process status of applicable records.

**GENERAL TO THE PROCESS**

The MPC RFP process was reviewed in detail by the Surveillance Team. It was found that the M&O bypassed procedural steps that are required to effectively implement the process. These steps should have taken place prior to or immediately at the onset of work activities as good planning practices. Examples of this condition include:

1. Work activities for the MPC RFP commenced on or about November 8, 1993 and the QAP-2-0 Work Controls analysis was not issued in the Charlotte Office until February 14, 1994 and the Vienna Office (for RFP specifics) on February 24, 1994.
2. It was originally decided that a TDPP was not required for the generation of Design Requirements Documents (DRD). Contrary to the intended purpose of QAP-3-5 (Technical Document Preparation), the Cognizant Office Manager documented (November 2, 1993) that a TDPP was not required based upon little or no rationale provided in the IOC (VA.ST.JBB 11/93.008). Additionally, it was implied in the documentation that DRDs could be prepared in accordance with QAP-3-8 (Specifications) or DRD instructions. QAP-3-8 provides no procedural direction for the development of DRDs, while "instructions" for DRDs should have been placed in a TDPP. Eventually the TDPP was issued on February 18, 1994.
3. The M&O procedure for the control of purchased items and services, QAP-7-1, requires that a plan be developed to ensure a systematic approach to the

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS (Continuation):**

procurement process. Also it requires that the planning be accomplished as early as practicable and no later than at the start of those procurement activities which are to be controlled. The Procurement Plan was not issued until March 24, 1994, well after the onset of the controlled developmental and review processes.

The impact of failing to implement the appropriate requirements in a timely manner should be assessed by the M&O. Consideration should be focused on future procurements and the "lessons learned" from the experience, with recurrence control to preclude repetition of the indicated conditions. The deficiency concerning the lack of timeliness in the implementation of procedural requirements is documented in CAR HQ-94-013.

The Surveillance Team noted during the course of the surveillance at both the Charlotte and Vienna Offices, that it appeared that the M&O had no documented methodology for assuring that all outstanding issues will be resolved and closed prior to the issuance of the MPC RFP to DOE. The M&O proceeded throughout the MPC RFP process utilizing drafts of documents as source inputs and provided those drafts to developers and reviewers for usage. In some cases because of the concurrent paths numerous comments were still outstanding, while dependent work activities commenced. This involved all aspects of the integral parts of the RFP. For example the SOW was developed using drafts of the Acquisition Plan and other technical documents; the DPSs were prepared and reviewed while SRDs were in the draft state, the Requirements Backup Sheets, and the Traceability Analysis had not been complete. Also, the DRDs were prepared while the DPSs and SOW were in the draft state.

The Surveillance Team requested that the M&O implement a process that would assure that all of the open issues will be addressed. M&O management suggested that a program already existed in the form of a Readiness Review (QAP-2-6). This aspect was reviewed accordingly and was found inappropriate for the condition identified. The Surveillance Team concluded that this significant issue was not adequately documented by the M&O via an appropriate process or methodology. This deficiency is documented in CAR HQ-94-010.

**10 SURVEILLANCE CONCLUSIONS:**

**SUMMARY OF REQUIRED CORRECTIVE ACTIONS**

The Surveillance Team determined that the process utilized by the M&O to develop and issue the MPC RFP is marginal. Six (6) Corrective Action Reports (CARs) were issued that require response and corrective action by the M&O. CAR HQ-94-009 addresses a deficiency in the area of the QAP-2-0, *Work Control* and an apparent lack of control in the delineation of the procedures that should have been implemented for the task involving the review of the MPC Acquisition Management and Procurement Plan. CAR HQ-94-010 identifies a significant deficiency that documents that the M&O proceeded throughout the MPC RFP process utilizing drafts of documents as source inputs and provided those drafts to developers and reviewers for usage. In some cases because of the concurrent paths, numerous comments were outstanding, while dependent work activities commenced. CAR HQ-94-011 identifies a significant deficiency because the M&O has no documented process to release TBDs/TBRs from the SRD, based on the upward trace from released TBVs identified for the DPSs. CAR HQ-94-012 addresses the fact that the M&O failed to properly transmit to DOE the information relevant to the Q-List for the MPC. Currently no Q-List exists for the MPC. CAR HQ-94-013 identifies a significant deficiency that documents that the M&O proceeded with the process for the preparation and issuance of the MPC RFP while being in non-compliance with the requirements of the QARD and M&O procedures QAP-2-0, QAP-3-5, and QAP-7-1. CAR HQ-94-014 documents that M&O personnel participated in the DPS developmental process as both developers and reviewers, i.e. lacking the required independence.

The "General to the Process" Section (page 11) of this report identifies the two most significant areas of concern to the Surveillance Team. These issues are documented in CARs HQ-94-010 and HQ-94-013.

**ITEMS CORRECTED DURING SURVEILLANCE**

1. The documentation for one individual's indoctrination training was not available. The training documentation was completed during the surveillance and the item was closed as an isolated case.
2. Training documentation for two individuals was not readily available for various QAP-3-1 and QAP-4-1 reviewers. The documentation was retrieved and the item was considered corrected.
3. The original TDPP generated for MPC System Design Requirements Documents did not fully meet the requirements of QAP-3-5. A review of the TDPP for the Preparation of the MPC System Design Requirements Documents revealed that the

**10 SURVEILLANCE CONCLUSIONS (Continuation):**

specified format did not meet the requirements of QAP-3-5, i.e., a listing of design inputs, the objective, and the scope were not included in the format. During the surveillance, Revision 1 of the TDPP was approved and issued which corrected the deficiencies.

4. QAP-3-1 comments reflected unverified assumptions related to licensing precedence. Objective evidence was received from the M&O indicating that the three items had been corrected. The documentation was considered acceptable and therefore the item was closed.
5. A QAP-4-1 management review was documented improperly on the DRR. The DRR was corrected and the item was closed.

**RECOMMENDATIONS**

1. The Surveillance Team recommends that the M&O assess the adequacy of how and when QA Training Records are transmitted to the M&O Training Group. This assessment should primarily include the issue of the role the Line Organizations Management plays in transmitting the records in relationship to the starting of work that effects quality.
2. The Surveillance Team recommends that training records or duplicates of training records be purged from the document QA records package to the appropriate privileged record file.
3. Currently, three QAP-2-3 analyses exist that address MPCs at the Charlotte and Vienna Offices. The Surveillance Team recommends that centralized control of this process be established. Also, assurance should be established that the proper document and design control elements are enforced.
4. Some QAP-2-0 analyses do not get document identifiers, while others do. The Surveillance Team recommends that the M&O become consistent in how these documents are identified and tracked.
5. Currently, QAP-3-8 requires that the Lead Design Engineer concur with the final specification. The Surveillance Team recommends that the Certification of Specifications Form provide for a concurrence signature by the Lead Design Engineer.



**10 SURVEILLANCE CONCLUSIONS (Continuation):**

6. The Surveillance Team recommends that QAP-3-1, 3-8, and 3-9 be revised to ensure compatibility in the areas of interdisciplinary and external reviews.
7. The Surveillance Team recommends that, when requirements are specifically interpreted and stated in a higher level requirements document (e.g. SRDs), the requirements should be further expanded in the lower level technical documents or quoted verbatim rather than a generalized statement with reference to the requirements source such as the Code of Federal Regulations. This is a repeat of a recommendation identified during Surveillance HQ-93-07.
8. The Charlotte TBV/TBD (CLP-3-2) form does not have a block to reference the documents that justify the release of a TBV or TBD. The Surveillance Team recommends the TBV/TBD description form should contain a reference to the document that justified the release.
9. The Surveillance Team recommends that QAP-3-1' be revised to specify the necessary content and maintenance requirements for the TDRN Log.
10. The Surveillance Team recommends that the MPC DPSs be re-reviewed for requirements traceability during the QAP-3-1 review of the MPC DRDs and prior to the release of the MPC Design Request for Proposal.
11. The Surveillance Team recommends that the M&O review all DRRs to ensure that the comment resolutions have been signed off as accepted prior to submitting the QAP-3-1 records package into the records management system.
12. The Surveillance Team recommends Section 3.0 of the Management Acquisition and Procurement Plan be revised to accurately reflect the fact that QAP-2-3 analyses have been performed.
13. The Surveillance Team recommends that the procurement plan be revised to include the milestone schedules for the Statement of Work and the Design Procurement Specifications.

**LIST OF ATTACHMENTS**

Attachment 1: List of Personnel Contacted

Attachment 2: List of Objective Evidence Reviewed

ATTACHMENT 1

Personnel Contacted During Surveillance

<u>Name</u>	<u>Organization</u>	<u>Title</u>
C. Aderholdt	MRS/MPC Design Group	LRC Office Assistant
J. Blandford	M&O/S&T	Project Manager
G. Boyt	M&O/S&T	Systems Engineer
J. Cassidy	M&O/QA	Quality Engineering Mgr
C. Chagnon	M&O/Design Group	Supervisor
G. Childress III	MRS/MPC Design Group	Senior Engineer
P. Chomentowski	M&O/QA	QA Engineer
E. Chulick	M&O/Training	Manager, Training
J. Clark	M&O/S&T	Deputy Project Manager
R. Clark	DOE/RW-3.1	Director, HQ QA Div.
T. Coyle	M&O	Senior Engineer
H. Dameron	M&O/QA	Sr. Technical Specialist
P. DeLozier	M&O/S&T	Staff/CSD
C. Denton	M&O/S&T	Design Engineer
R. Eble	MRS/MPC Design Group	Engineering Supervisor
M. Engineer	M&O/Design Group	Sr. Engineer
W. Farmer	M&O/QA	Lead Auditor
D. Franks	M&O/QA	Audits Manager
S. Gibson	M&O/LRC	Records Analyst
O. Gilstrap	M&O/Design Group	Supervisor
J. Hadley	MRS/MPC Design Group	Associate Engineer
H. Hadley	M&O/Systems Engineering	Systems Engineer
P. Hathcock	M&O	Design Engineer
S. Hughes	M&O	Senior Engineer
W. Hunt	MRS/MPC Design Group	Quality Engineer
D. Jennnings	M&O	Mgr. Rec's Mgt.Svcs
G. Keener	M&O/QA	Lead Auditor
C. Kelly	M&O/Training	Trg. Rec. Spec.
J. MacCarthy	M&O/Systems Engineering	Mgr. Sys. Engineering
T. Matthew	M&O	Compliance Specialist
J. McConaghy, Jr.	M&O/Design Group	Engineering Supervisor
J. Morelli	M&O/Sys Int	Systems Engineering
R. Morgan	M&O/QA	QA Manager
B. Patton	M&O	Tech. Spec. II
W. Patton	M&O	Engineer
V. Price	M&O	Supervising Engineer
S. Robinson	M&O/Systems Engineering	Systems Engineer
T. Sawyer	MRS/MPC Design Group	Design Engineer
P. Schlereth	M&O/QA	Sr. QA Engineer
W. Schneider	M&O/Subcontracts	Manager

**ATTACHMENT 1**

**Personnel Contacted During Surveillance**

<b><u>Name</u></b>	<b><u>Organization</u></b>	<b><u>Title</u></b>
S. Schott	M&O	Engineer
N. Seagle	M&O/Design Group	Engineering Supervisor
M. Shepherd	M&O/Records	Records Analysis
L. Stallings	M&O/S&T	Task Manager
J. Stringer	M&O	Mgr. Design Dept.
D. Summers	M&O/Design Group	Design Engineer
A. Tayfun	M&O	Records Manager
C. Taylor	M&O/Design Group	Associate Engineer
B. Teer	M&O/S&T	Manager, Trans.
J. Thorton	M&O/Design Group	Senior Engineer
J. Tierney	M&O/QA	Mgr. QE Support
J. VanOmer	M&O/S&T/SID	Systems Engineering
L. Waller	M&O/Design Group	Sr. Design Engineer
J. Watson	M&O/Training	Supervisor
A. Wells	M&O/Design Group	Canister Engineer
T. White	M&O/QA	Sr. QA Engineer
M. Williams	M&O Configuration Mgmt.	CM Specialist
J. Willis	M&O/Sys Int	Section Head

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
IOC from J.B. Stringer to Richard Peck Technical Document Preparation Plan (TDPP) for the MPC System	CH.MRS.RGW. 4/94/160
Technical Document Preparation Plan (TDPP) for the MPC System Design Requirements Documents DI#	A200000-01717-4600-00001-00/
Document Control Action Request (DAR) for the TDPP for the MPC System Design Requirements Documents	N/A
Charlotte Local Procedure CLP-3-2 <i>To Be Verified (TBV) and To Be Determined (TBD) Monitoring</i> DI#	A10000000-01717-50002-00002
Document Control Action Request for CLP-3-1	N/A
Document Control Instructions for CLP-3-2	N/A
Technical Document Review Notice for the MPC Subsystem Design Procurement Specification	TDRN Log #CLT-94-001
Technical Document Review Notice for the MPC Transportation Cask Subsystem Design Procurement Specification	TDRN Log #CLT-94-02
Technical Document Review Notice for the On-Site Transfer and On-Site Storage Segment Design Procurement Specification	TDRN Log #CLT-94-003

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
<b><u>DRRs for the MPC Subsystem DPS</u></b>	
R.G. Eble	Revision 0A and 0B
William Lake	Revision 0A and 0B
John MacCarthy	Revision 0A and 0B
Jeff Ray	Revision 0A and 0B
John Miller	Revision 0A and 0B
Robert Morgan	Revision 0A and 0B
Don Noland	Revision 0A and 0B
John Richardson	Revision 0A and 0B
Don Schutt	Revision 0A and 0B
Mark Senderling	Revision 0A and 0B
Greg Smith	Revision 0A and 0B
Dean Stucker	Revision 0A and 0B
James Cassidy	Revision 0A and 0B
Prasanna Kumar	Revision 0A and 0B
<b><u>DRRs for the MPC Transportation Cask Subsystem DPS</u></b>	
R.G. Eble	Revision 0A and 0B
William Lake	Revision 0A and 0B
John MacCarthy	Revision 0A and 0B
Jeff Ray	Revision 0A and 0B
John Miller	Revision 0A and 0B
Robert Morgan	Revision 0A and 0B
Don Noland	Revision 0A and 0B
John Richardson	Revision 0A and 0B
Don Schutt	Revision 0A and 0B
Mark Senderling	Revision 0A and 0B
Greg Smith	Revision 0A and 0B
Dean Stucker	Revision 0A and 0B
James Cassidy	Revision 0A and 0B
Prasanna Kumar	Revision 0A and 0B

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
<b><u>DRRs for the On-Site Transfer/On-Site Storage DPS:</u></b>	
R.G. Eble	Revision 0A and 0B
William Lake	Revision 0A and 0B
John MacCarthy	Revision 0A and 0B
Jeff Ray	Revision 0A and 0B
John Miller	Revision 0A and 0B
Robert Morgan	Revision 0A and 0B
Don Noland	Revision 0A and 0B
John Richardson	Revision 0A and 0B
Don Schutt	Revision 0A and 0B
Mark Senderling	Revision 0A and 0B
Greg Smith	Revision 0A and 0B
Dean Stucker	Revision 0A and 0B
James Cassidy	Revision 0A and 0B
Prasanna Kumar	Revision 0A and 0B
MPC Subsystem DPS	DBG000000-01717-6300 -00001, Rev OA and OB
MPC Transportation Cask Subsystem DPS	DBF000000-01717-6300 -00001, Rev OA and OB
On-Site Transfer (OST) and On-Site Storage (OSS) Segments DPS	DI# CB0000000-01717-6300 -00001, Rev OA and OB
MPC Transportation Cask Subsystem DPS Design Traceability Analysis	DI# DBF000000-01717 -0200-00002, Revision 1
MPC Transportation Cask Subsystem DPS Design Requirements Backup Analysis Revision	DBF0000000-01717-0200 -00001, Revision 1
MPC Subsystem DPS Design Traceability Analysis	DBG000000-01717-0200-00002, Revision 0

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
M&O Corrective Action Report 94-QC-C-003	3/31/94
Technical Document Preparation Plan for the MPC System Design Requirements Documents	2/18/94
MPC Subsystem DPS Design Traceability Analysis	3/8/94
MPC Subsystem DPS Upward Trace Matrix Check Copy	3/2/94
MPC Subsystem DPS Downward Trace Matrix Check Copy	3/4/94
Traceability of MPC and MPC Transportation Cask Specifications	3/25/94
Traceability of the OST and OSS Specifications Category 4 Requirements	3/23/94
Traceability of the MPC Specification, Category 4 Requirements	3/23/94
MPC Transportation Cask Subsystem Design Procurement Specification Requirements Backup Analysis	3/31/94
MPC Subsystem Design Procurement Specification Requirements Backup Analysis	3/31/94
Memo transmitting Design Input Data Request	1/10/94
Memo transmitting Design Input Data Transmittal	2/14/94
Memo documenting decision to not require interdisciplinary and external reviews for the MPC DPS Requirements Backup Analysis	2/9/94
Certification of Specification Form for the MPC Transportation Cask Subsystem DPS	3/31/94
Certification of Specification Form for the MPC Subsystem DPS	4/4/94

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
Transportation Cask Design Procurement Specification Checklist	4/4/94
Memo documenting decision to not require interdiscipline and external reviews for the MPC Transportation Cask DPS Requirements Backup Analysis	2/9/94
CRWMS Requirements Document (CRD) and System Requirements Documents (SRDs), Revision 01	2/2/94
Charlotte Training/Position Description - Bobby Broome	N/A
Charlotte Training/Position Description - R.G. Eble	N/A
Charlotte Training/Position Description - Mike Engineer	N/A
Charlotte Training/Position Description - Shantilal G. Goradia	N/A
Charlotte Training/Position Description - C.W. (Carl) Chagnon	N/A
Charlotte Training/Position Description - Joe B. Stringer	N/A
Charlotte Training/Position Description - Lynn Waller	N/A
Charlotte Training/Position Description - Bill Patton	N/A
Charlotte Training/Position Description - Phillip Hathcock	N/A
Charlotte Training/Position Description - Edwin Houston	N/A
CRWMS M&O Multi-Purpose Canister Systems Statement of Work QAP-4-1 Review Draft 0A	3/11/94
QAP-4-1 Review of MPC SOW Kickoff Meeting to QAP-4-1 Reviewers from J.B. Blandford	3/11/94



**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
CRWM M&O Multi-Purpose Canister Systems Acquisition Management and Procurement Plan	Rev. 0, 3/8/94
Design Requirements Document (DRD) 2nd Internal Draft to John MacCarthy from Joe Springer	Rev. 0A, 3/17/94
CRWMS M&O MPC Transportation Cask Subsystem Design Requirements Document	Rev. 0A, 3/17/94
DRR for Statement of Work - Pete Schlereth	3/16/94
DRR for Statement of Work - Mark Senderling	3/17/94
DRR for Statement of Work - John MacCarthy	3/17/94
DRR for Statement of Work - Bill Lemeszewski	3/17/94
DRR for Statement of Work - Bob Eble	3/17/94
DRR for Statement of Work - Donald Nolan	3/18/94
Design Analysis Cover Sheet "Estimation of Operation, Times for MPC Transportation Cask, and 08TS Activities	Rev. 0, 3/29/94
Memo to File from Bill R. Teer, Suitability of FICA Data as a Reference for Design Procurement Specification	3/26/94
Design Requirements Backup Sheet, MPC Transportation Cask Subsystem, Tran 3.2.2.1 (SRD) Page 28 of Attachment I, Tran 4.2 (DPS)	Rev. 01, 3/29/94
M&O/Vienna Training Records - Mary Birch	N/A
M&O/Vienna Training Records - Jim Blandford	N/A

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
M&O/Vienna Training Records - George Boyt	N/A
M&O/Vienna Training Records - Jim Cassidy	N/A
M&O/Vienna Training Records - William Holloway	N/A
M&O/Vienna Training Records - William Law	N/A
M&O/Vienna Training Records - Larry Lindsay	N/A
M&O/Vienna Training Records - John MacCarthy	N/A
M&O/Vienna Training Records - Donald Nolan	N/A
M&O/Vienna Training Records - Pete Schlereth	N/A
M&O/Vienna Training Records - M. Gregory Smith	N/A
M&O/Vienna Training Records - Lee Stern	N/A
M&O/Vienna Training Records - Bill Teer	N/A
M&O/Vienna Training Records - Toney Matthews	N/A
M&O/Vienna Training Records - Cindy Aderholdt	N/A
M&O/Vienna Training Records - Stanley Scott	N/A
M&O/Vienna Training Records - Jennifer Hadley	N/A
M&O/Vienna Training Records - Roy Bream	N/A
M&O/OCRWM Training Records - Prasanna Kumar	N/A
M&O/OCRWM Training Records - William Lemeschewsky	N/A

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
M&O/OCRWM Training Records - T. Arul Mozhi	N/A
M&O/OCRWM Training Records - Jeff Williams	N/A
M&O/OCRWM Training Records - Harold Cleary	N/A
M&O/OCRWM Training Records - Corinne Macaluso	N/A
Memo to QAP-3-1 Reviewers from J.B. Stringer, QAP-3-1 Review of MPC System DPSs Kickoff Mtg.	2/22/94
Technical Document Preparation Plan for the Revision of System Requirements Documents	Rev. 2, 10/14/93
Memo to Reviewers from C. Denton, QAP-4-1 Review of the MPC Acquisition Management and Procurement Plan	2/17/94
QA Records Package for Acquisition Management and Procurement Plan (Table of Contents)	4/7/94
Memo to QAP-4-1 Reviewers from J.B. Blandford, Rubber Room Review of MPC Procurement Package	2/25/94
Systems Requirements Issue Resolution Plan (Draft)	Rev. 0, 3/31/94
Monitored Retrievable Storage System Requirements Document (MRS-SRD)	Rev. 1, 2/22/94
Waste Acceptance System Requirements Document (WA-SRD)	Rev. 1, 3/94
Mined Geologic Disposal System Requirements Document	Rev. 1, 3/4/94
Transportation System Requirements Document (TRANS-SRD)	Rev. 1, 3/31/94
TBV/TBD Status Report to Distribution from J.B. Stringer	3/31/94

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
MPC Transport Cask Subsystem DPS	2/21/94
OCRWM Baseline Management Procedure for Configuration Identifiers	3/93
Letter Milner to Blandford Deleting TBVs and TBDs for DPS	3/31/94
Request for Assignment of Configuration Identifiers	4/8/94
Corrective Action Report Identifying Untimely Transmittal of Records to LRC	11/23/93
Program Level Controlled Document Register	3/31/94
2-3 Classification of the MPC	A00000000-01717-0200 -00003, Rev. 0
Design Analysis IOC, J.B. Stringer to J.B. Blandford	DBG000000-01717-0200 -00001, Rev 0
Transmittal LRC Charlotte, N.C. To CRF Vienna, VA.	HQC.940323.096
QAP 2-0 Work Controls, Charlotte	C00000000-01717-2200 -0001, Rev. 0
QAP-2-0 Work Controls, Vienna	A20000000-01717-2200 -0001, Rev. 0
2-3 Classification	DBG000000-01717-0200- -0003, Rev. 0
2-0 Work Controls Summary for Charlotte (Distribution)	2/15/94
IOC, Revised QA Evaluation of the Activities Associated with the Preparation of the MPC Acquisition Management and Procurement Plan	VA.ST.GRB.4/94.028

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

<b><u>Document Title</u></b>	<b><u>Date/Revision/Identification</u></b>
QAP-2-0 Activity Control (Draft Procedure)	N/A
Recommended Q-Lists	CH.MRS.OJG.3/94.100
IOC, QAP-2-3 Analysis for Systems Engineering MPC Work	VA.SE.WH.693.060
QA Evaluation of the Activities Associated with the Preparation of the MPC Acquisition Management and Procurement Plan	VA.ST.JRC.11/93.005
IOC, J.B. Blandford to J.B. Stringer	11/2/93 VA.STJBB.11/93.008
IOC, J.B. Stringer to MRC/MPC Design Group Employees	11/11/93
IOC, J.B. Blandford to J.B. Stringer	2/9/94 VA.STJBB.02/94.005
IOC, J.B. Stringer to File No. 6050-00-0024.00	2/1/94
DOE Letter, R.A. Milner to J.B. Blandford Subject: MPC DPSs	3/31/94
IOC, T.A. Matthews to Distribution	2/21/94CH.MRS.TAM.2/94.070
IOC, G.A. Carruth to J. Stringer	4/8/94NA.SE.GAC.4/94.069
DRRs for the MPC System Acquisition Management and Procurement Plan	
D. Buzzelli	N/A
P.H. Schlerith	N/A
J.E. MacCarthy	N/A
K. Rees	N/A
G. Carruth	N/A
B. Lemenshewski	N/A
J.L. Tierney	N/A
J. B. Blandford	N/A

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

**MPC Transportation Cask Requirements Flowdown 4/14/94**

Requirement Source	DPS Requirement	Comments
Trans 3.2.3.2.2.2A	Trans 4.1.4A	Requirement fully addressed
Trans 3.2.3.2.2.2L	Trans 4.1.4B	Requirement fully addressed
Trans 3.2.3.2.3C	Trans 4.1.4D	Requirement fully addressed
Trans 3.2.5.2A	Trans 4.4B	Requirement fully addressed
Trans 3.2.7.1	Trans 5.2.1 B,C,D Trans 4.3.2	Requirement fully addressed
Trans 3.3.3I	Trans 4.9A	Requirement fully addressed
Trans 3.3.4.1	Trans 4.11	Requirement fully addressed
Trans 3.3.8.1.1	Trans 4.11	Requirement fully addressed
Trans 3.3.8.1.2	Trans 4.11	Requirement fully addressed
Trans 3.4.1.3	Trans 4.11	Requirement fully addressed
Trans 3.5.1.2	Trans 4.11	Requirement fully addressed
Trans 3.7.1.2.1A1	Trans 3.1.1 Trans 5.1 Trans 5.1.1A	Requirement fully addressed
Trans 3.7.1.2.1C2	Trans 4.11	Requirement fully addressed
Trans 3.2.3.2.3O	MPC 5.1.1.9	Requirement fully addressed
Trans 3.2.3.2.3T	MPC 5.1.1.8	Requirement fully addressed
Trans 3.2.3.2.3V	MPC 5.2.1.1C MPC 5.2.1.1.1B	Requirement fully addressed
Trans 3.2.3.2.3W	MPC 5.2.1.1C MPC 5.2.1.1.1B	Requirement fully addressed
Trans 3.3.3J	MPC 4.9F	Requirement fully addressed

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

**MPC Transportation Cask Requirements Flowdown 4/14/94**

Requirement Source	DPS Requirement	Comments
Trans. 3.4.4A	MPC 4.11, 5.1.1.1	Requirement fully addressed
Trans 3.4.5.1	MPC 4.11	Requirement fully addressed
Trans 3.4.2	MPC 4.11	Requirement fully addressed
Trans 3.4.1.1A	MPC 4.11	Requirement fully addressed
Trans 3.4.1.1B	MPC 4.11	Requirement fully addressed
Trans 3.4.1.3	MPC 4.11	Requirement fully addressed
Trans 3.7.1.2.3.3C	MPC 5.1.2.4A	Requirement fully addressed
Trans 3.7.1.2.3.7C	MPC 4.9F	MPC 4.9F fully addresses requirement
Trans 3.7.1.2.3.7F	MPC 4.9F	MPC 4.9F fully addresses requirement
Trans 3.7.1.2.3.11	MPC 4.11	Requirement fully addressed
Trans 3.7.1.2.3.12	MPC 5.1.3B	Requirement fully addressed
Trans 3.3.8.1.1	MPC 4.11	Requirement fully addressed
Trans 3.3.8.1.2	MPC 4.11	Requirement fully addressed
Trans 3.3.4.1	MPC 4.11	Requirement fully addressed
MRS 3.2.3.3.3B	OSTS 4.11 OSTS 4.1.3C	Requirement fully addressed
MRS 3.2.3.3.3D	OSTS 5.1.1.4 OSTS 5.2.1.4C	Requirement fully addressed
MRS 3.2.3.3.3I	OSTS 5.1.1.2A OSTS 5.1.1.2B OSTS 5.2.1.2	Requirement fully addressed
MRS 3.2.3.3.3K	OSTS 4.1.1.3	Requirement fully addressed

**ATTACHMENT 2**

**List of Objective Evidence Reviewed During the Surveillance**

**MPC Transportation Cask Requirements Flowdown 4/14/94**

Requirement Source	DPS Requirement	Comments
MRS 3.2.3.3.3M	OSTS 4.1.3A OSTS 4.1.3B OSTS 4.1.3F OSTS 5.1.2.3	Requirement fully addressed
MRS 3.2.3.3.3N	OSTS 4.1.3A	Requirement fully addressed
MRS 3.2.4.2.4	OSTS 4.1.1.1.3	Requirement fully addressed
MRS 3.2.4.2.5	OSTS 4.9B	Requirement fully addressed
MRS 3.2.5.1.3	OSTS 4.4C	Requirement fully addressed
MRS 3.2.5.2.1	OSTS 4.4D	Requirement fully addressed
MRS 3.2.5.2.6	OSTS 4.4F	Requirement fully addressed
MRS 3.2.6.2.3	OSTS 4.1.1.1.2	Requirement fully addressed
MRS 3.2.7A	OSTS 5.2.3	OSTS 5.2.3 fully addresses requirement
MRS 3.2.7B	OSTS 4.1.1A, 4.1.3 OSTS 5.2.2.2	OSTS 5.2.3 partially addresses requirement
MRS 3.3.4.1	OSTS 4.11	Requirement fully addressed
MRS 3.3.6.13	OSTS 4.7.1 OSTS 4.7.2D	Requirement fully addressed
MRS 3.3.8.1.1	OSTS 4.11	Requirement fully addressed
MRS 3.3.8.1.2	OSTS 4.11	Requirement fully addressed