



DEPARTMENT OF THE ARMY  
U.S. Army Corps of Engineers  
WASHINGTON, D.C. 20314-1000

REPLY TO  
ATTENTION OF:

CEMP-RT (200-1a)

23 SEP 1997

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Changes in HTRW Technical Roles and Responsibilities Due to Division Laboratory Closures

1. References.

a. CEMP-RT memorandum, 17 January 1996, subject: "Environmental Cleanup and Protection Management Plan for Military Programs."

b. CEMP-RT memorandum, 24 July 1996, subject: "Technical Roles and Responsibilities for the USACE Hazardous, Toxic, and Radioactive Waste (HTRW) Program."

2. The changes to Tables 1 and 2 are the result of announced division laboratory (HTRW Chemistry Laboratory) closures. Attachments 1 and 2 to reference 1.b were replaced by figures 1, 2, and 3 in the present enclosure to help clarify which projects require mandatory review by the HTRW Center of Expertise (CX). These revisions do not change the basic review concept described in reference 1.b.

3. In accordance with this update, personnel assigned to the technical project planning teams at each HTRW Design District will determine the best course of action to obtain replacement services for those quality assurance (QA) functions currently being provided by their division laboratories. However, project decision makers are strongly encouraged to use services available from the newly designated Chemistry and Materials Quality Assurance Laboratory (CMQAL), Omaha, Nebraska when designing project specific QA.

4. Enclosed is an update to the above listed references 1.a and 1.b. This revision to the HTRW mandatory review concept replaces Tables A and B in reference 1.a, supersedes reference 1.b, and shall take effect immediately.

5. Assistance in QA support transition is available from either the Chemical Data Quality Management Branch or Geoenvironmental and Process Engineering Branch of the HTRW CX in Omaha, Nebraska. Assistance from these branches should be coordinated with the Environmental Studies and Liaison Branch (402) 697-2615.

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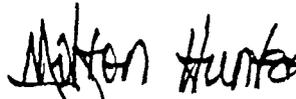
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7. Request you disseminate this information to your laboratories, the engineering, construction, and project management elements of your HTRW Design Districts, and other elements and districts as necessary.
8. The point of contact for this action is Mr. Larry Becker, CEMP-RT, (202) 761-8882.

FOR THE COMMANDER:

Encl



MILTON HUNTER  
Major General, USA  
Director of Military Programs

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CEMP-R

Technical Roles and Responsibilities for the USACE Hazardous, Toxic, and Radioactive Waste (HTRW) Program (Updated)

The types of HTRW projects executed by USACE vary from simple, straightforward, low cost projects to politically, chemically, and geologically complicated projects with complex regulatory issues. There are a variety of technical project submittals associated with the environmental cleanup activities of such HTRW projects. By categorizing projects and clearly identifying design district, Major Subordinate Command (MSC), and HTRW Center of Expertise (CX) roles and responsibilities we can simplify the review process. When technical issues significantly affecting the cost, direction, or use of innovative technology on a project remain unresolved between the HTRW Design District and the CX review comments, the CX will document their position by memo to the District Commander with copies to the MSC and CEMP-RT. The District Commander remains the responsible approving authority for projects.

The following table identifies the general roles and responsibilities of design districts, MSCs and the HTRW CX in the project technical verification process.

HTRW Project Technical Verification Process

Work Performed By	Work Product	QC - Design/Quality Review*	QA ** CX Support
A-E	QC Plan (QCP) (contract requirement)	HTRW Design District	Division Oversight of QC process
	Deliverables (contract requirement)	HTRW Design District *** CX reviews	Division Oversight of QC process
HTRW Design District (In-House)	QC Plan	HTRW Design District - Independent Technical Review ***CX reviews/participation	Division Oversight of QC process
	SOWs (for A-E work)	HTRW Design District - Independent Technical Review ***CX reviews/participation	Division Oversight of QC process
	Deliverables	HTRW Design District - Independent Technical Review ***CX reviews/participation	Division Oversight of QC process

\* The design district is responsible for all review (Table 1) for projects in Category A. Criteria for determining Category A projects are given below.

\*\* The HTRW CX will support/participate with MSCs as requested in their QA oversight and audits of HTRW design district QC processes.

\*\*\*The HTRW CX will review (multidisciplinary) selected key documents (see Table 2) for projects in

Category B. Criteria for determining Category B projects are given below. Mandatory HTRW CX review may be met by CX (multi-disciplinary) participation in the design district's Independent Technical Review process.

HTRW Project Technical Categories:

Design districts shall screen each HTRW project against the following decision criteria to determine the appropriate review process. The design district is responsible for all review, as shown in Table 1, for projects in Category A (figures 1, 2 and 3). Key documents for projects in Category B (figures 1, 2 and 3) will be reviewed by the HTRW CX, see Table 2.

**HTRW Project Technical Category Decision Criteria:**

(RCRA terminology may be substituted where ever CERCLA terminology is used in this document)

The District Commander remains the responsible approving authority for projects.

- Category A:** a) All projects in the PA phase (figure 1) and those beyond the SI phase **not** meeting the decision criteria in the Decision Trees at figures 1, 2, and 3.  
(No mandatory HTRW CX Review)
- b) All routine projects as defined by the ECP Management Plan

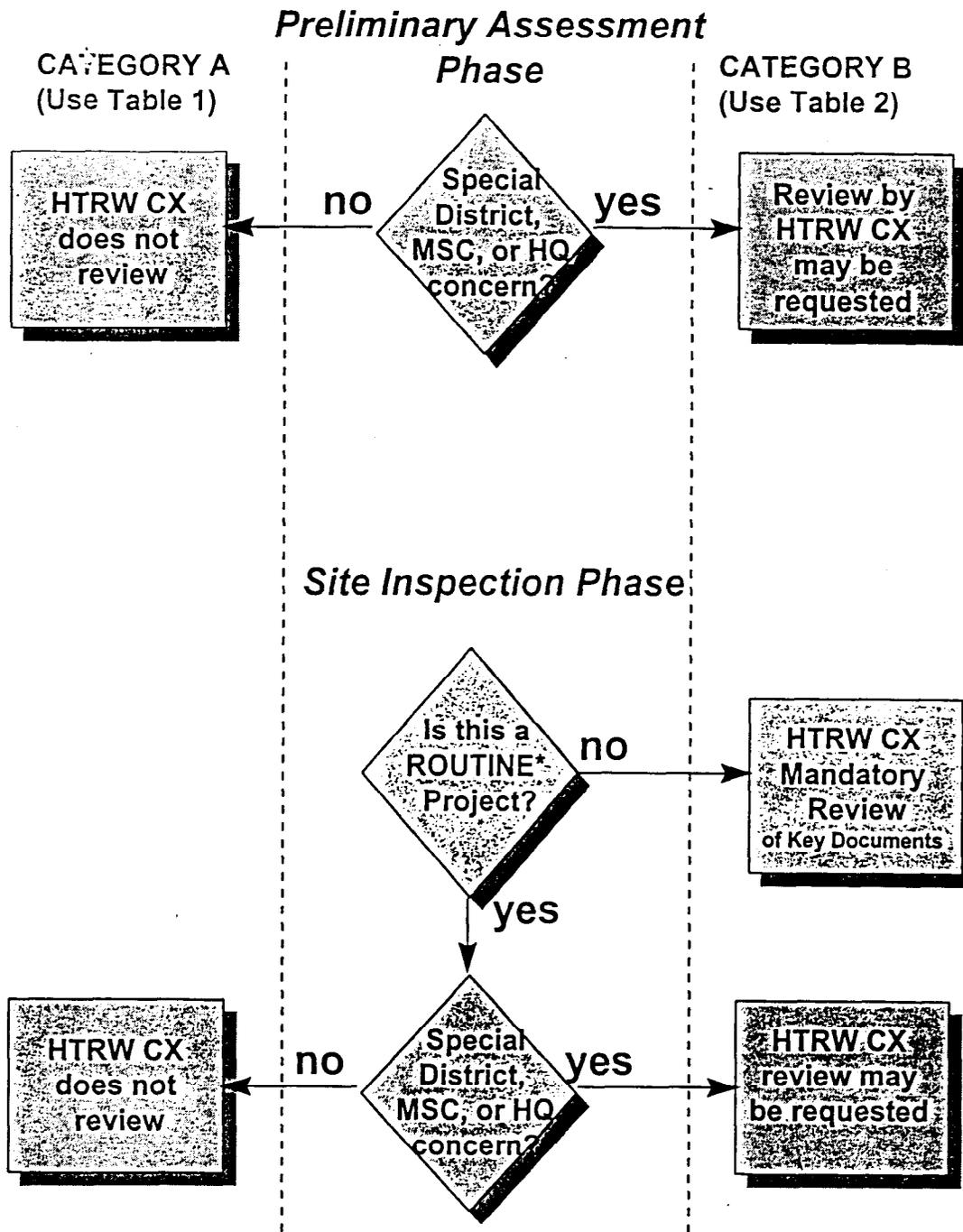
- Category B:** All projects **meeting** the decision criteria in the Decision Trees, see figures 1,2, and 3.  
(Mandatory HTRW CX Review)

Certain **key documents** from designated category B projects have been selected for mandatory CX review. These key documents are identified in Table 2 by an "R," under the CX responsibility column. Table 2 identifies, for all of the programs executed by USACE, the major restoration program phases executed under the authority of either CERCLA or RCRA, the project submittals/activities under each phase, and the various roles and responsibilities of the different USACE offices. Each MSC will define any project document submission requirements for their QA process oversight role.

Design districts are responsible for documenting the screening process. This certification shall be included in the Quality Control Plan for each HTRW project. A suggested form for certifying that the screening process has been performed and for documenting its outcome is provided at figure 4.

# HTRW Project Technical Category Decision Tree

9/11/97

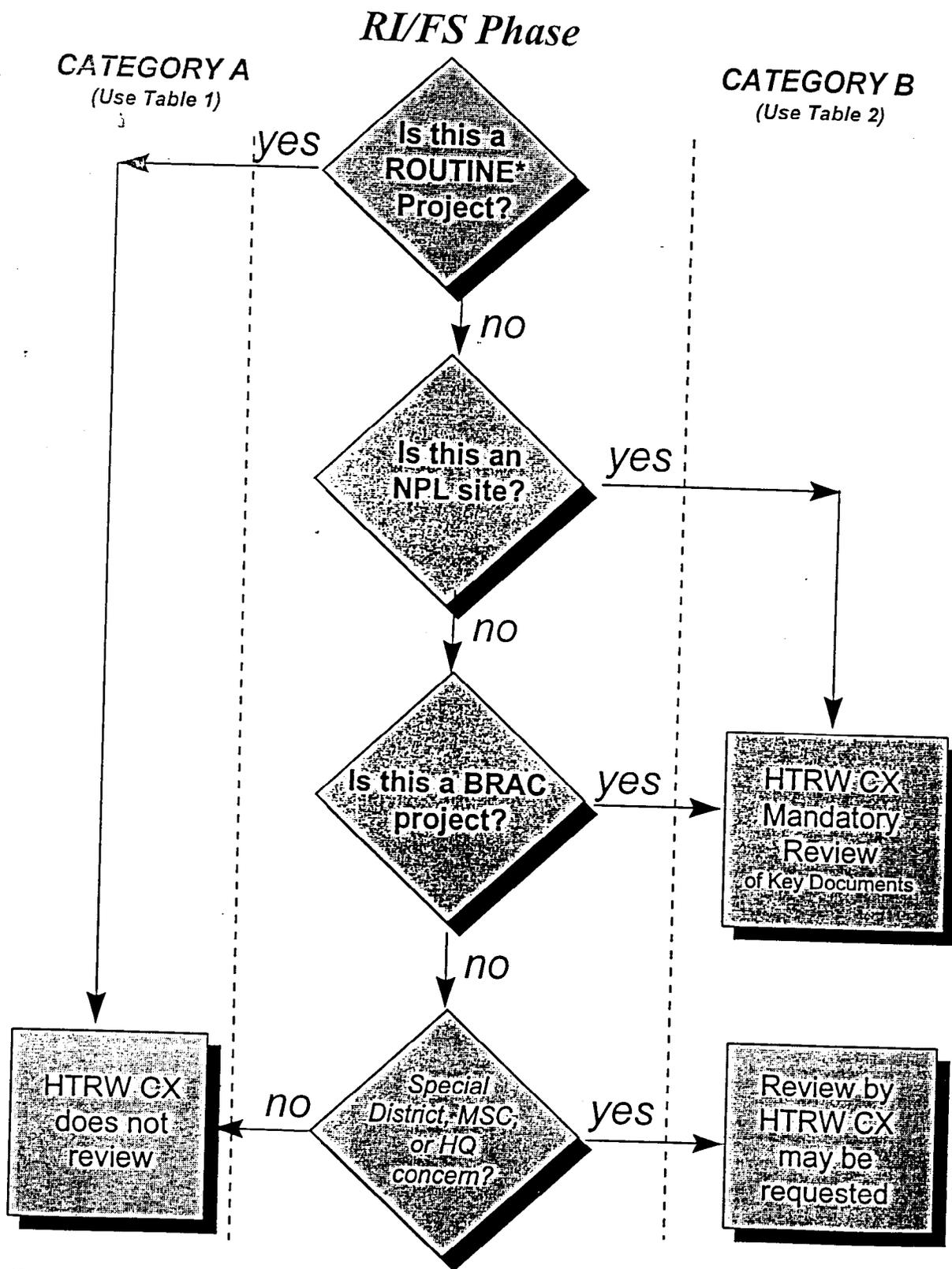


\* Routine projects include building demolition/debris removal (BD/DR) and containerized HTRW projects (Con HTRW), transformer, hydraulic systems, and underground storage tank (UST) removals.

Figure 1

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Figure 2

# HTRW Project Technical Category Decision Tree

## RD/RAC Phase

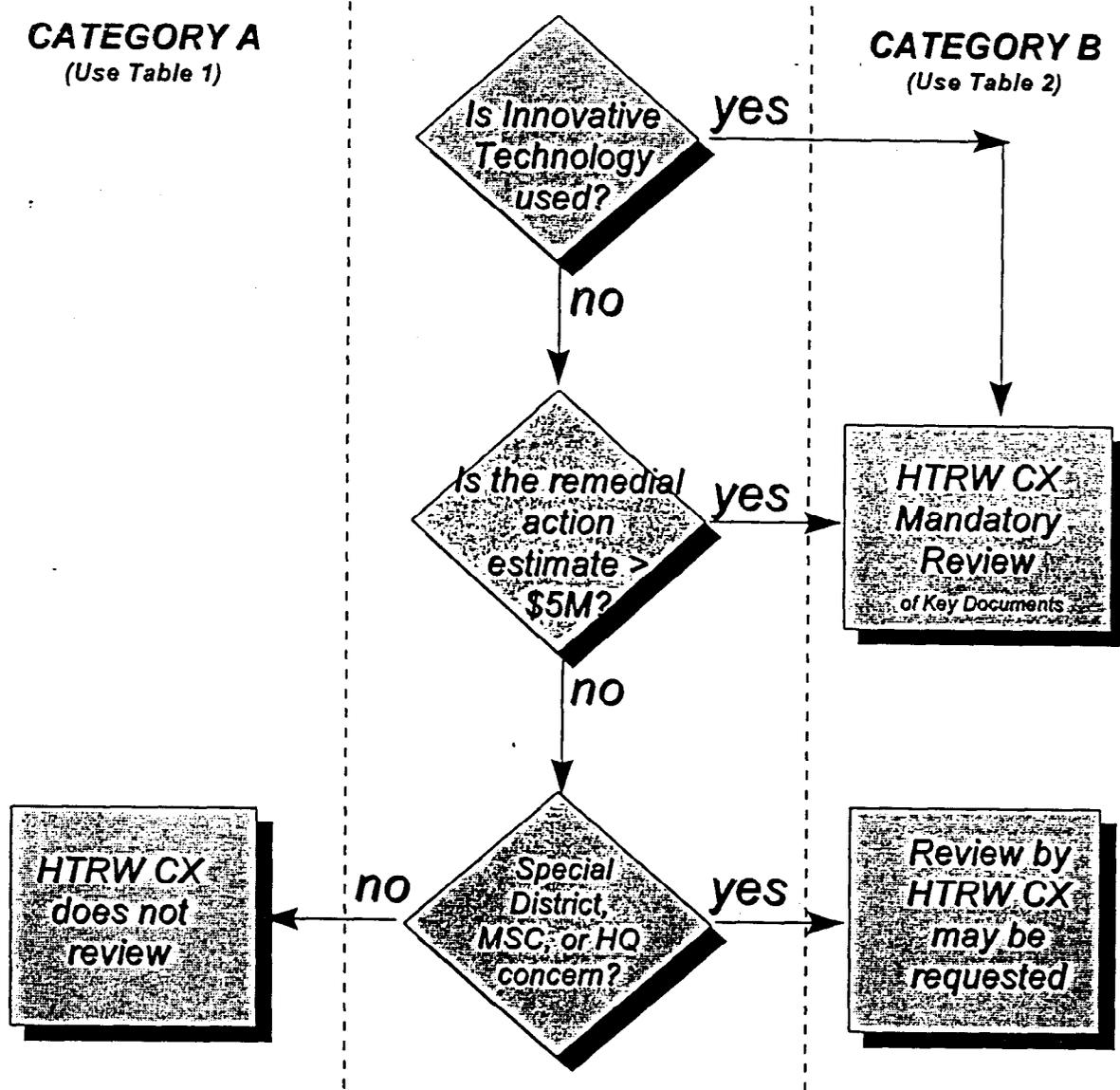


Figure 3

**Technical Roles and Responsibilities of USACE Elements  
for Key HTRW Project Submittals/Activities from Category A Projects**

LEGEND: A=Approve/Accept, E=Execute, R=Mandatory Review, I=Information Copy, Q=Quality Assurance Oversight, BCOE=Biddability, Constructibility, Operability, and Environmental Review

[Definitions and notes (indicated by "\*"n") are located at the end of the table]

Major Program Phases & Selected Activities		Roles & Responsibilities by USACE Element				
RCRA ACTIVITY <small>The RCRA process is not followed in FUDS.</small>	CERCLA ACTIVITY	MILITARY HTRW DESIGN DISTRICT *1	MSC	CMQAL *2	CX	HQ USACE
<b>RCRA Permit Application</b> (usually performed by the customer)	<b>Preliminary Assessment (PA)</b> Scope of Work	E,A				
	Limited Site Safety & Health Plan (SSHP)	E,A				
	Report (Site Screening Analysis)	E	A *3			
<b>RCRA Facility Assessment (RFA)</b> (usually done by EPA. If input is required by USACE the same roles and responsibilities shown for the equivalent CERCLA activity should be followed.)	<b>Site Inspection (SI)</b> *4 Scope of Work/Workplan *5 Investigation Activities Site Inspection Report Hazard Ranking System Score *6 Relative Risk Project Evaluation	E, A		I		
		E,A				
				(site scored by EPA)		
		E				
<b>RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS)</b> Permit Negotiation & Compliance Schedule	<b>Remedial Investigation/ Feasibility Study (RI/FS)</b> --- *4 Scope of Work/Workplan ~Contract Laboratory Validation ~Community Relations Plan (CRP)	E				
		E,A		I		
		I			E,A	
		E,A				
(On IR projects, CRPs may be handled by the military facility ; on FUDS projects CRPs are handled by the military geographic district.)						
~Sampling and Analysis Plan	~Sampling and Analysis Plan	E,A		I		
*7 ~Site Safety and Health Plan	*7 ~Site Safety and Health Plan	E,A				

Table 1 (continued)

Major Program Phases & Selected Activities		MILITARY HTRW DESIGN DISTRICT <sup>*1</sup>	MSC	CMQAL *2	CX	HQ USACE
<b>RCRA ACTIVITY</b> The RCRA process is not followed in FUDS.	<b>CERCLA ACTIVITY</b>					
<b>RCRA Facility Investigation/ (cont'd)</b> <b>Corrective Measures Study (RFI/CMS)</b>	<b>Remedial Investigation/ (cont'd)</b> <b>Feasibility Study (RI/FS)</b>					
~Daily Quality Control Reports	~Daily Quality Control Reports	E,A		I*8		
~Chemical Data Interim Report	~Chemical Data Interim Report	E,A		R		
~Chemical Quality Assurance Rpt	~Chemical Quality Assurance Rpt	E*2		E	Q*9	
~Chemical Data Quality Assessment Rpt	~Chemical Data Quality Assessment Rpt	E			Q*9	
RF Investigation Report	Remedial Investigation Report	E,A				
*5 ~Treatability Studies Workplan	*5 ~Treatability Studies Workplan	E,A				
Corrective Measures Report/Interim Measure	Feasibility Study Rpt// Engineering Evaluation/Cost Analysis	E,A				
Statement of Basis	Proposed Plan/ Record of Decision/ Decision Document	E				A *10
<b>Corrective Measures Design</b>	<b>Remedial Design (RD)</b>					
*4 Scope of Work	*4 Scope of Work/Workplan	E,A				
Value Engineering Study/Report	Value Engineering Study/Report	E,A				
*5 Predesign Studies	*5 Further Site Characterization					
Concept (30%) Design w/ Cost Estimate	Concept Design (30%) w/ Cost Estimate	E,BCOE,A				
Intermediate (60%) Design w/ Cost Estimate	Intermediate (60%) Design w/ Cost Estimate	E,BCOE,A				
Site Maintenance/Closure Plan	Project Maintenance/Closure Plan	E,BCOE,A				
Operation & Maintenance Manual	Operation & Maintenance Manual	E,BCOE,A				
Designers' Instructions to the Field	Designers' Instructions to the Field	E,A				
Final Design/As-Advt'd Plans & Specs w/Cost Estimate	Final Design/As-Advt'd Plans & Specs w/ Cost Estimate	E,BCOE,A (See requisition regulations for correct approval authority)				
<b>Corrective Measures Implementation</b>	<b>Remedial Action Construction (RAC)</b>					
Value Engineering Change Proposal	Value Engineering Change Proposal	E, A				
Contract Laboratory Validation	Contract Laboratory Validation	I			E	

Table 1 (Continued)

Major Program Phases & Selected Activities		MILITARY HTRW DESIGN DISTRICT *1	MSC	CMQAL *2	CX	HQ USACE
RCRA ACTIVITY The RCRA process is not followed in FUDS.	CERCLA ACTIVITY					
<b>Corrective Measures Impelmentation (continued)</b>	<b>Remedial Action Construction (RAC) (continued)</b>					
Community Relations Plan	Community Relations Plan	E, A				
Sampling and Analysis Plan	Sampling and Analysis Plan	E, A		I		
Chemical Data Quality Control Plan	Chemical Data Quality Control Plan	E,A		I		
*7 Site Safety and Health Plan	*7 Site Safety and Health Plan	E, A				
Construction QA Plan	Construction QA Plan	E,A		I		
Daily Quality Control Reports	Daily Quality Control Reports	E,A		I*8		
Chemical Data Interim Report	Chemical Data Interim Report	E,A		I		
Contractor Final Report	Contractor Final Report	E,A		I		
Chemical Quality Assurance Rpt	Chemical Quality Assurance Rpt	E*2		E	Q *9	
~Chemical Data Quality Assessment Rpt	~Chemical Data Quality Assessment Rpt	E			Q *9	
Report of Remedial Action	Report of Remedial Action	E,A				
<b>Operation &amp; Maintenance (O&amp;M)</b>	<b>RA Operation &amp; Long Term Monitoring</b>					
Preparation of Operation & Maintenance Contracts	Preparation of RA Operation & Long Term Monitoring Contracts	E,A				

**NOTES:**

GENERAL - This table shows the program phases & the major submittals or activities that are usually required for an environmental restoration project performed under either EPA's or a state's RCRA or CERCLA programs as appropriate (These include Superfund, most DERP projects and environmental restoration projects for other customers). Specific projects may not require all of these elements and/or may have specific requirements which are not shown. The order and phase in which a specific activity is performed may also vary from this table. This table does not address FUDS PRP projects. See appropriate guidance.

\*1 Geographic military districts will perform project management, and construction contract management and supervision for military funded projects. See the *Environmental Cleanup and Protection Management Plan for Military Programs*, 17 January 1996. Geographic and design districts should work together to assure full coordination of responsibilities during the RAC phase.

Table 1 (continued)

**NOTES: continued**

\*2 The HTRW Military Design District's technical project planning (TPP) team will determine need for and location of QA laboratory support. Use of CMQAL for QA support is strongly recommended. If CMQAL is selected to provide QA testing services, items in the CMQAL column will apply. Similarly, if the TPP Team selects another facility to provide project QA testing services, items in the CMQAL column will then apply to the lab QA provider. The CMQAL may perform any or all of the CQAR activities - analysis of split (QA) samples, data review, and writing of the comparative report.

\*3 For FUDS Inventory Project Reports (INPRs) the MSC approves Findings & Determination of Eligibility. The OE CX reviews for adherence to program guidance & policy. Other programs may have program specific requirements.

\*4 Workplan is a generic term. Attachments/appendices to the workplan may include any and/or all of the following: Sampling and Analysis Plan - includes Field sampling Plan and Quality Assurance Project Plan; Site Safety and Health Plan; Monitoring Well Installation and Drilling Plan; Treatability Study Workplan; Investigative Derived Waste Management Plan; Community Relations Plan.

\*5 Investigation activities as part of an SI, Treatability Studies, or remedial design may require any or all of the elements marked with a ~ under RI/FS and RFI/CMS (e.g. SSHIP, Sampling and Analysis Plan) as appropriate to the particular project and project phase. The same roles and responsibilities apply to these elements no matter the project phase in which they are performed.

\*6 The Relative Risk Project Evaluation is performed on all FUDS projects by the executing district at each project phase, even though the evaluation is not repeated at each phase in this table. The HTRW CX performs QA review as requested by CEMP-RF on FUDS projects. The design district may be requested by the customer to perform this evaluation for other DoD projects.

\*7 SSHPs for contractor conducted investigative activities and SSHPs, Health and Safety Design Analyses (HSDAs) and Safety, Health and Emergency Response (SHER) contract provisions shall be reviewed and accepted by the executing District's Engineering Division and by the District's Safety and Occupational Health Office function if prepared in-house. Remedial Action Construction SSHPs shall be reviewed and accepted by the Construction District's Safety and Occupational Health Office.

\*8 The Daily Chemical Quality Control Report portion of these reports is to be sent to CMQAL for information, when used to provide QA support.

\*9 See ER 1110-1-263 for explanation of the USACE chemical quality assurance program.

\*10 Individual restoration programs must be consulted to determine the appropriate approval authority for records of decision or other decision docs.

**DEFINITIONS:**

**A=Approve or accept**, as appropriate. This essentially indicates that all comments have been appropriately handled and the submittal can be finalized and the next stage may proceed.

**E=Execute**; Execute includes performance of the actual activity for or from which a plan is prepared. These activities may be conducted in-house or by contract and include appropriate quality verification activities by the design district.

**R=Mandatory Review**. Mandatory review by the CX is not required on Category A HTRW projects.

**BCOE = Biddability, Constructibility, Operability and Environmental Review** by Construction Division per ER 415-1-11.

**CX=Center of Expertise**. The CX for HTRW projects is located in Omaha,Ne. The CX for OE projects is located in Huntsville, AL.

**HTRW=Hazardous, Toxic, and Radioactive Waste**      **OE=Ordnance and Explosives**      **I=For information only**.

Table 1 (continued)

**Definitions continued**

**Q=Quality Assurance Oversight.** CQARs and CDQARs from all projects are sent to the HTRW CX. The CX reviews 10% of the reports received.

**CMQAL= USACE Chemistry & Materials Quality Assurance Laboratory** or other provider requested to perform chemical data quality management activities for a project, including the analysis of split samples and the preparation of Chemical QA Reports. See ER 1110-1-263 and ER 1110-1-8100.

TABLE 2

**Technical Roles and Responsibilities of USACE Elements  
for Key HTRW Project Submittals/Activities from Category B Projects**

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	*4 Scope of Work/Workplan	E, A		I	R	
	*5 Investigation Activities					
	Site Inspection Report	E,A			R	
	Hazard Ranking System Score	(site scored by EPA)				
	*6 Relative Risk Project Evaluation	E				
<b>RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS)</b> Permit Negotiation & Compliance	<b>Remedial Investigation/ Feasibility Study (RI/FS)</b>					
	---	E				
*4 Scope of Work/Workplan	*4 Scope of Work/Workplan	E,A		I	R	
~Contract Laboratory Validation	~Contract Laboratory Validation	I			E,A	
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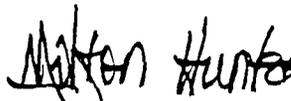
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Category B. Criteria for determining Category B projects are given below. Mandatory HTRW CX review may be met by CX (multi-disciplinary) participation in the design district's Independent Technical Review process.

HTRW Project Technical Categories:

Design districts shall screen each HTRW project against the following decision criteria to determine the appropriate review process. The design district is responsible for all review, as shown in Table 1, for projects in Category A (figures 1, 2 and 3). Key documents for projects in Category B (figures 1, 2 and 3) will be reviewed by the HTRW CX, see Table 2.

**HTRW Project Technical Category Decision Criteria:**

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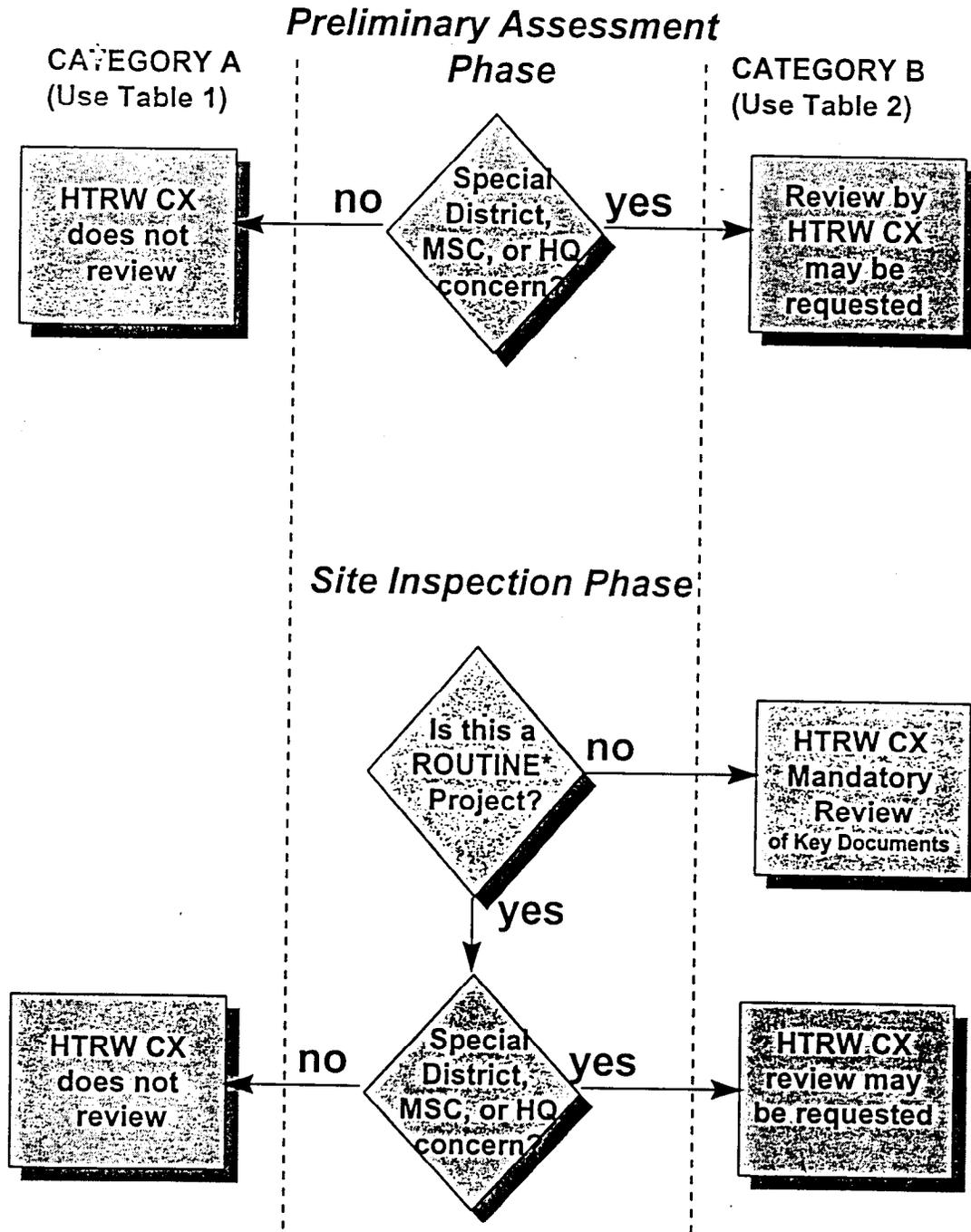
- Category B:** All projects **meeting** the decision criteria in the Decision Trees, see figures 1,2, and 3.  
(Mandatory HTRW CX Review)

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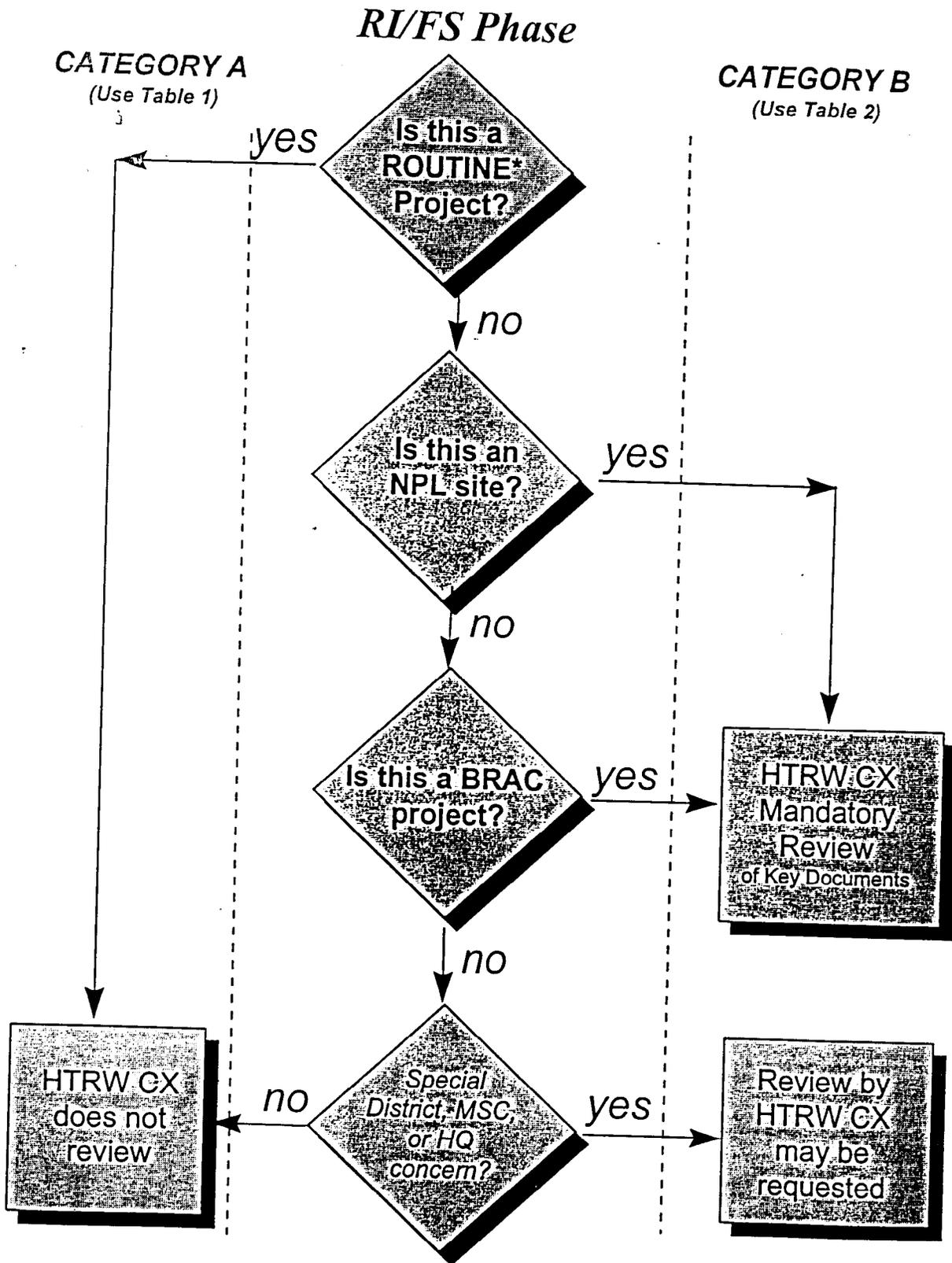


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Figure 1

# HTRW Project Technical Category Decision Tree

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\*Routine projects include building demolition/debris removal (BD/DR) and containerized HTRW projects (Con HTRW), transformer, hydraulic systems, and underground storage tank (UST) removals.

Figure 2

# HTRW Project Technical Category Decision Tree

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## RD/RAC Phase

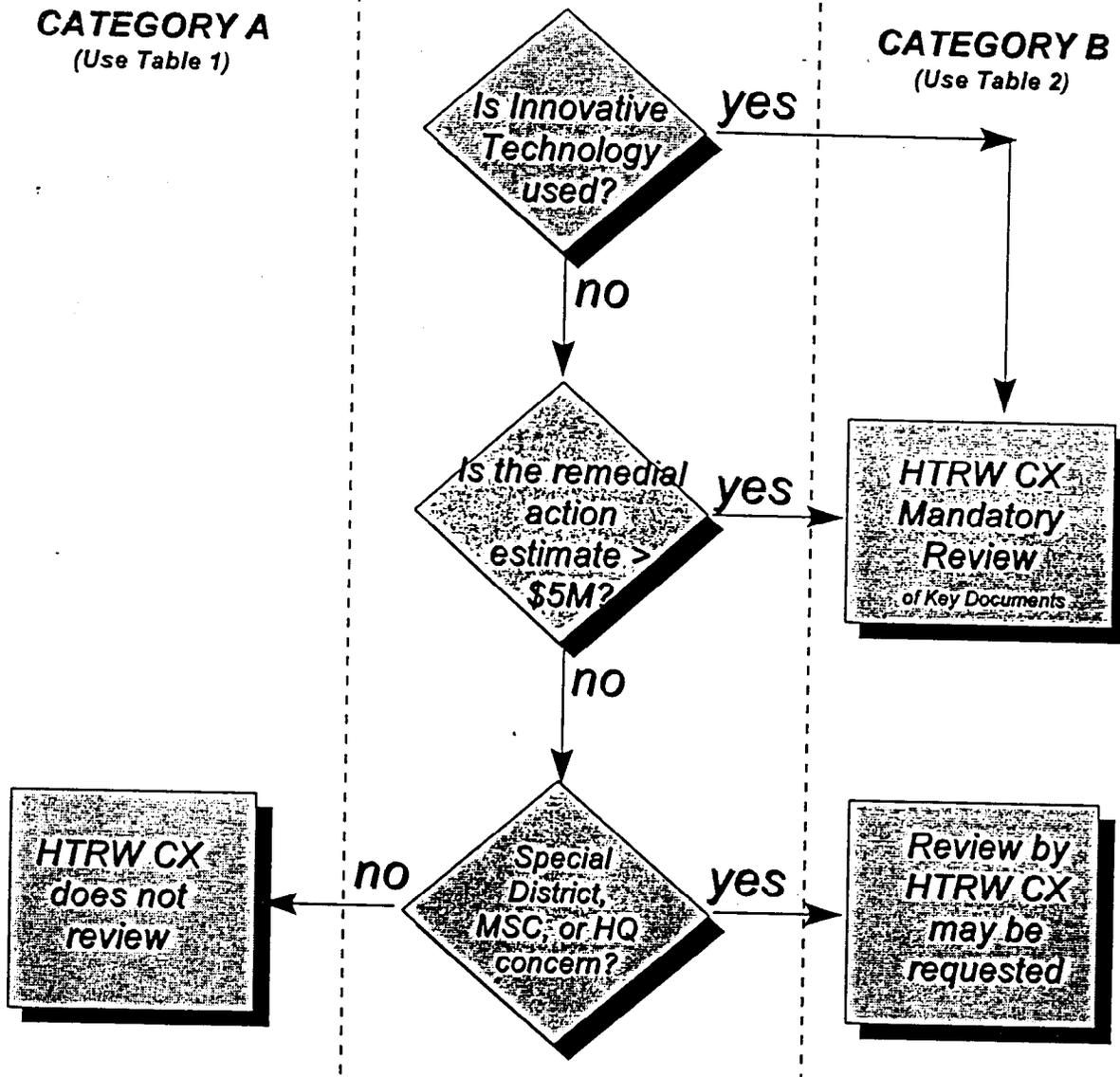


Figure 3

**Technical Roles and Responsibilities of USACE Elements  
for Key HTRW Project Submittals/Activities from Category A Projects**

LEGEND: A=Approve/Accept, E=Execute, R=Mandatory Review, I=Information Copy, Q=Quality Assurance Oversight, BCOE=Biddability, Constructibility, Operability, and Environmental Review

[Definitions and notes (indicated by "\*"n") are located at the end of the table]

Major Program Phases & Selected Activities		Roles & Responsibilities by USACE Element				
RCRA ACTIVITY <small>The RCRA process is not followed in FUDS.</small>	CERCLA ACTIVITY	MILITARY HTRW DESIGN DISTRICT *1	MSC	CMQAL *2	CX	HQ USACE
<b>RCRA Permit Application</b> (usually performed by the customer)	<b>Preliminary Assessment (PA)</b> Scope of Work	E,A				
	Limited Site Safety & Health Plan (SSHP)	E,A				
	Report (Site Screening Analysis)	E	A *3			
<b>RCRA Facility Assessment (RFA)</b> (usually done by EPA. If input is required by USACE the same roles and responsibilities shown for the equivalent CERCLA activity should be followed.)	<b>Site Inspection (SI)</b> *4 Scope of Work/Workplan *5 Investigation Activities Site Inspection Report	E, A		I		
	Hazard Ranking System Score	(site scored by EPA)				
	*6 Relative Risk Project Evaluation	E				
<b>RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS)</b>	<b>Remedial Investigation/ Feasibility Study (RI/FS)</b>					
Permit Negotiation & Compliance Schedule	---	E				
*4 Scope of Work/Workplan	*4 Scope of Work/Workplan	E,A		I		
~Contract Laboratory Validation	~Contract Laboratory Validation	I			E,A	
~Community Relations Plan (CRP)	~Community Relations Plan (CRP)	E,A				
(On IR projects, CRPs may be handled by the military facility ; on FUDS projects CRPs are handled by the military geographic district.)						
~Sampling and Analysis Plan	~Sampling and Analysis Plan	E,A		I		
*7 ~Site Safety and Health Plan	*7 ~Site Safety and Health Plan	E,A				

Table 1 (inued)

Major Program Phases & Selected Activities		MILITARY HTRW DESIGN DISTRICT**1	MSC	CMQAL *2	CX	HQ USACE
<b>RCRA ACTIVITY</b> The RCRA process is not followed in FUDS.	<b>CERCLA ACTIVITY</b>					
<b>RCRA Facility Investigation/ (cont'd)</b> <b>Corrective Measures Study (RFI/CMS)</b>	<b>Remedial Investigation/ (cont'd)</b> <b>Feasibility Study (RI/FS)</b>					
~Daily Quality Control Reports	~Daily Quality Control Reports	E,A		I*8		
~Chemical Data Interim Report	~Chemical Data Interim Report	E,A		R		
~Chemical Quality Assurance Rpt	~Chemical Quality Assurance Rpt	E*2		E	Q*9	
~Chemical Data Quality Assessment Rpt	~Chemical Data Quality Assessment Rpt	E			Q*9	
RF Investigation Report	Remedial Investigation Report	E,A				
*5 ~Treatability Studies Workplan	*5 ~Treatability Studies Workplan	E,A				
Corrective Measures Report/Interim Measure	Feasibility Study Rpt// Engineering Evaluation/Cost Analysis	E,A				
Statement of Basis	Proposed Plan/ Record of Decision/ Decision Document	E				A *10
<b>Corrective Measures Design</b>	<b>Remedial Design (RD)</b>					
*4 Scope of Work	*4 Scope of Work/Workplan	E,A				
Value Engineering Study/Report	Value Engineering Study/Report	E,A				
*5 Predesign Studies	*5 Further Site Characterization					
Concept (30%) Design w/ Cost Estimate	Concept Design (30%) w/ Cost Estimate	E,BCOE,A				
Intermediate (60%) Design w/ Cost Estimate	Intermediate (60%) Design w/ Cost Estimate	E,BCOE,A				
Site Maintenance/Closure Plan	Project Maintenance/Closure Plan	E,BCOE,A				
Operation & Maintenance Manual	Operation & Maintenance Manual	E,BCOE,A				
Designers' Instructions to the Field	Designers' Instructions to the Field	E,A				
Final Design/As-Advt'd Plans & Specs w/Cost Estimate	Final Design/As-Advt'd Plans & Specs w/ Cost Estimate	E,BCOE,A (See requisition regulations for correct approval authority)				
<b>Corrective Measures Implementation</b>	<b>Remedial Action Construction (RAC)</b>					
Value Engineering Change Proposal	Value Engineering Change Proposal	E, A				
Contract Laboratory Validation	Contract Laboratory Validation	I			E	

Table 1 (Continued)

Major Program Phases & Selected Activities		MILITARY HTRW DESIGN DISTRICT *1	MSC	CMQAL *2	CX	HQ USACE
RCRA ACTIVITY The RCRA process is not followed in FUDS.	CERCLA ACTIVITY					
<b>Corrective Measures Impelmentation (continued)</b>	<b>Remedial Action Construction (RAC) (continued)</b>					
Community Relations Plan	Community Relations Plan	E, A				
Sampling and Analysis Plan	Sampling and Analysis Plan	E, A		I		
Chemical Data Quality Control Plan	Chemical Data Quality Control Plan	E,A		I		
*7 Site Safety and Health Plan	*7 Site Safety and Health Plan	E, A				
Construction QA Plan	Construction QA Plan	E,A		I		
Daily Quality Control Reports	Daily Quality Control Reports	E,A		I*8		
Chemical Data Interim Report	Chemical Data Interim Report	E,A		I		
Contractor Final Report	Contractor Final Report	E,A		I		
Chemical Quality Assurance Rpt	Chemical Quality Assurance Rpt	E*2		E	Q *9	
~Chemical Data Quality Assessment Rpt	~Chemical Data Quality Assessment Rpt	E			Q *9	
Report of Remedial Action	Report of Remedial Action	E,A				
<b>Operation &amp; Maintenance (O&amp;M)</b>	<b>RA Operation &amp; Long Term Monitoring</b>					
Preparation of Operation & Maintenance Contracts	Preparation of RA Operation & Long Term Monitoring Contracts	E,A				

**NOTES:**

GENERAL - This table shows the program phases & the major submittals or activities that are usually required for an environmental restoration project performed under either EPA's or a state's RCRA or CERCLA programs as appropriate (These include Superfund, most DERP projects and environmental restoration projects for other customers). Specific projects may not require all of these elements and/or may have specific requirements which are not shown. The order and phase in which a specific activity is performed may also vary from this table. This table does not address FUDS PRP projects. See appropriate guidance.

\*1 Geographic military districts will perform project management, and construction contract management and supervision for military funded projects. See the *Environmental Cleanup and Protection Management Plan for Military Programs*, 17 January 1996. Geographic and design districts should work together to assure full coordination of responsibilities during the RAC phase.

Table 1 (continued)

**NOTES: continued**

\*2 The HTRW Military Design District's technical project planning (TPP) team will determine need for and location of QA laboratory support. Use of CMQAL for QA support is strongly recommended. If CMQAL is selected to provide QA testing services, items in the CMQAL column will apply. Similarly, if the TPP Team selects another facility to provide project QA testing services, items in the CMQAL column will then apply to the lab QA provider. The CMQAL may perform any or all of the CQAR activities - analysis of split (QA) samples, data review, and writing of the comparative report.

\*3 For FUDS Inventory Project Reports (INPRs) the MSC approves Findings & Determination of Eligibility. The OE CX reviews for adherence to program guidance & policy. Other programs may have program specific requirements.

\*4 Workplan is a generic term. Attachments/appendices to the workplan may include any and/or all of the following: Sampling and Analysis Plan - includes Field sampling Plan and Quality Assurance Project Plan; Site Safety and Health Plan; Monitoring Well Installation and Drilling Plan; Treatability Study Workplan; Investigative Derived Waste Management Plan; Community Relations Plan.

\*5 Investigation activities as part of an SI, Treatability Studies, or remedial design may require any or all of the elements marked with a ~ under RI/FS and RFI/CMS (e.g. SSHP, Sampling and Analysis Plan) as appropriate to the particular project and project phase. The same roles and responsibilities apply to these elements no matter the project phase in which they are performed.

\*6 The Relative Risk Project Evaluation is performed on all FUDS projects by the executing district at each project phase, even though the evaluation is not repeated at each phase in this table. The HTRW CX performs QA review as requested by CEMP-RF on FUDS projects. The design district may be requested by the customer to perform this evaluation for other DoD projects.

\*7 SSHPs for contractor conducted investigative activities and SSHPs, Health and Safety Design Analyses (HSDAs) and Safety, Health and Emergency Response (SHER) contract provisions shall be reviewed and accepted by the executing District's Engineering Division and by the District's Safety and Occupational Health Office function if prepared in-house. Remedial Action Construction SSHPs shall be reviewed and accepted by the Construction District's Safety and Occupational Health Office.

\*8 The Daily Chemical Quality Control Report portion of these reports is to be sent to CMQAL for information, when used to provide QA support.

\*9 See ER 1110-1-263 for explanation of the USACE chemical quality assurance program.

\*10 Individual restoration programs must be consulted to determine the appropriate approval authority for records of decision or other decision docs.

**DEFINITIONS:**

**A=Approve or accept**, as appropriate. This essentially indicates that all comments have been appropriately handled and the submittal can be finalized and the next stage may proceed.

**E=Execute**; Execute includes performance of the actual activity for or from which a plan is prepared. These activities may be conducted in-house or by contract and include appropriate quality verification activities by the design district.

**R=Mandatory Review**. Mandatory review by the CX is not required on Category A HTRW projects.

**BCOE = Biddability, Constructibility, Operability and Environmental Review** by Construction Division per ER 415-1-11.

**CX=Center of Expertise**. The CX for HTRW projects is located in Omaha,Ne. The CX for OE projects is located in Huntsville, AL.

**HTRW=Hazardous, Toxic, and Radioactive Waste**      **OE=Ordnance and Explosives**      **I=For information only**.

Table 1 (continued)

**Definitions continued**

**Q=Quality Assurance Oversight.** CQARs and CDQARs from all projects are sent to the HTRW CX. The CX reviews 10% of the reports received.

**CMQAL= USACE Chemistry & Materials Quality Assurance Laboratory** or other provider requested to perform chemical data quality management activities for a project, including the analysis of split samples and the preparation of Chemical QA Reports. See ER 1110-1-263 and ER 1110-1-8100.

TABLE 2

**Technical Roles and Responsibilities of USACE Elements  
for Key HTRW Project Submittals/Activities from Category B Projects**

LEGEND: A=Approve/Accept, E=Execute, R=Mandatory Review, I=Information Copy, QA=Quality Assurance Oversight,  
BCOE=Biddability, Constructibility, Operability and Environmental Review

[Definitions and notes (indicated by "\*\*") are located at the end of the table]

Major Program Phases & Selected Activities		Roles & Responsibilities by USACE Element				
RCRA ACTIVITY <small>The RCRA process is not followed in FUDS</small>	CERCLA ACTIVITY	MILITARY HTRW DESIGN DISTRICT *1	MSC	CMQAL *2	CX	HQ USACE
<b>RCRA Permit Application</b> (usually performed by the customer)	<b>Preliminary Assessment (PA)</b>					
	Scope of Work	E,A				
	Limited Site Safety & Health Plan (SSHP)	E,A				
	Report (Site Screening Analysis)	E	A *3			
<b>RCRA Facility Assessment (RFA)</b> (usually done by EPA. If input is required by USACE the same roles and responsibilities shown for the equivalent CERCLA activity should be followed.)	<b>Site Inspection (SI)</b>					
	*4 Scope of Work/Workplan	E, A		I	R	
	*5 Investigation Activities					
	Site Inspection Report	E,A			R	
	Hazard Ranking System Score	(site scored by EPA)				
	*6 Relative Risk Project Evaluation	E				
<b>RCRA Facility Investigation/ Corrective Measures Study (RFI/CMS)</b>	<b>Remedial Investigation/ Feasibility Study (RI/FS)</b>					
Permit Negotiation & Compliance	---	E				
*4 Scope of Work/Workplan	*4 Scope of Work/Workplan	E,A		I	R	
~Contract Laboratory Validation	~Contract Laboratory Validation	I			E,A	
~Community Relations Plan (CRP)	~Community Relations Plan (CRP)	E,A				
(On IR projects, CRPs may be handled by the military facility ; on FUDS projects CRPs are handled by the military geographic district.)						
~Sampling and Analysis Plan	~Sampling and Analysis Plan	E,A		I		
*7 ~Site Safety and Health Plan	*7 ~Site Safety and Health Plan	E,A				

Table 2 (continued)

Major Program Phases & Selected Activities		Roles & Responsibilities by USACE Element				
RCRA ACTIVITY The RCRA process is not followed in FUDS	CERCLA ACTIVITY	MILITARY HTRW DESIGN DISTRICT <sup>*1</sup>	MSC	CMQAL *2	CX	HQ USACE
<b>RCRA Facility Investigation/ (cont'd) Corrective Measures Study (RFI/CMS)</b>	<b>Remedial Investigation/ (cont'd) Feasibility Study (RI/FS)</b>					
~Daily Quality Control Reports	~Daily Quality Control Reports	E,A		I <sup>*8</sup>		
~Chemical Data Interim Report	~Chemical Data Interim Report	E,A		I		
~Chemical Quality Assurance Rpt	~Chemical Quality Assurance Rpt	E <sup>*2</sup>		E	Q <sup>*9</sup>	
~Chemical Data Quality Assessment Rpt	~Chemical Data Quality Assessment Rpt	E			Q <sup>*9</sup>	
RF Investigation Report	Remedial Investigation Report	E,A			R	
<sup>*5</sup> ~ Treatability Studies Workplan	<sup>*5</sup> ~Treatability Studies Workplan	E,A			R	
Corrective Measures Report/Interim Measure	Feasibility Study Rpt// Engineering Evaluation/Cost Analysis	E,A			R	
Statement of Basis	Proposed Plan/ Record of Decision/ Decision Document	E			R	A <sup>*10</sup>
<b>Corrective Measures Design</b>	<b>Remedial Design (RD)</b>					
<sup>*4</sup> Scope of Work/Workplan	<sup>*4</sup> Scope of Work/Workplan	E,A			R	
Value Engineering Study/Report	Value Engineering Study/Report	E,A				
<sup>*5</sup> Predesign Studies	<sup>*5</sup> Further Site Characterization					
Concept (30%) Design w/ Cost Estimate	Concept Design (30%) w/ Cost Estimate	E,BCOE,A			R	
Intermediate (60%) Design w/ Cost Estimate	Intermediate (60%) Design w/ Cost Estimate	E,BCOE,A				
Site Maintenance/Closure Plan	Project Maintenance/Closure Plan	E,BCOE,A				
Operation & Maintenance Manual	Operation & Maintenance Manual	E,BCOE,A				
Designers' Instructions to the Field	Designers' Instructions to the Field	E,A				
Fnl Design/As-Advtsd Plans & Specs w/Cost Estimate	Fnl Design/As-Advtsd Plans & Specs w/ Cost Estimate	E,BCOE,A (See acquisition reg	ulations	for correct	approval	authority)
<b>Corrective Measures Implementation</b>	<b>Remedial Action Construction (RAC)</b>					
Value Engineering Change Proposal	Value Engineering Change Proposal	E, A				

Table 2 (continued)

Major Program Phases & Selected Activities		Roles & Responsibilities by USACE Element				
RCRA ACTIVITY The RCRA process is not followed in FUDS	CERCLA ACTIVITY	MILITARY HTRW DESIGN DISTRICT *1	MSC	CMQAL *2	CX	HQ USACE
<b>Corrective Measures Implementation (continued)</b>	<b>Remedial Action Construction (RAC) (continued)</b>					
Contract Laboratory Validation	Contract Laboratory Validation	I			E	
Community Relations Plan	Community Relations Plan	E, A				
Sampling and Analysis Plan	Sampling and Analysis Plan	E, A		I		
Chemical Data Quality Control Plan	Chemical Data Quality Control Plan	E, A		I		
*7 Site Safety and Health Plan	*7 Site Safety and Health Plan	E, A				
Construction QA Plan	Construction QA Plan	E, A		I		
Daily Quality Control Reports	Daily Quality Control Reports	E, A		I*8		
Chemical Data Interim Report	Chemical Data Interim Report	E, A		I		
Contractor Final Report	Contractor Final Report	E, A		I		
Chemical Quality Assurance Rpt	Chemical Quality Assurance Rpt	E*2		E	Q *9	
~Chemical Data Quality Assessment Rpt	~Chemical Data Quality Assessment Rpt	E			Q *9	
Report of Remedial Action	Report of Remedial Action	E, A				
<b>Operation &amp; Maintenance (O&amp;M)</b>	<b>RA Operation &amp; Long Term Monitoring</b>					
Preparation of Operation & Maintenance Contracts	Preparation of RA Operation & Long Term Monitoring Contracts	E, A				

**NOTES:**

**GENERAL:** This table shows the program phases & the major submittals or activities that are usually required for an environmental restoration project performed under either EPA's or a state's RCRA or CERCLA programs as appropriate (These include Superfund, most DERP projects and environmental restoration projects for other customers). Specific projects may not require all of these elements and/or may have specific requirements which are not shown. The order and phase in which a specific activity is performed may also vary from this table. This table does not address FUDS PRP projects. See appropriate guidance.

\*1 Geographic military districts will perform project management and construction contract management and supervision for military funded projects. See the *Environmental Cleanup and Protection Management Plan for Military Programs*, 17 January 1996. Geographic and design districts should work together to assure full coordination of responsibilities during the RAC phase.

Table 2 (continued)

**NOTES: (continued)**

- \*2 The HTRW Military Design District's technical project planning (TPP) team will determine need for and location of QA lab support. Use of CMQAL for QA support is strongly recommended. If CMQAL is selected to provide QA services, items in the CMQAL column will apply. Similarly, if the TPP Team selects another facility to provide project QA testing services, items in the CMQAL column will then apply to the lab QA provider. The CMQAL may perform any or all of the CQAR activities - analysis of split (QA) samples, data review, and writing of the comparative report.
- \*3 For FUDS Inventory Project Reports (INPRs) the MSC approves Findings & Determination of Eligibility. The OE CX reviews for adherence to program guidance & policy. Other programs may have program specific requirements.
- \*4 Workplan is a generic term. Attachments/appendices to the workplan may include any and/or all of the following: Sampling and Analysis Plan - includes Field sampling Plan and Quality Assurance Project Plan; Site Safety and Health Plan; Monitoring Well Installation and Drilling Plan; Treatability Study Workplan; Investigative Derived Waste Management Plan; Community Relations Plan. Only those portions of the workplan containing the site background, project strategy (including regulatory framework), DQOs, and data collection design requirements need be submitted for review by the CX.
- \*5 Investigation activities as part of an SI, Treatability Studies, or remedial design may require any or all of the elements marked with a ~ under RI/FS and RFI/CMS (e.g. SSHP, Sampling and Analysis Plan) as appropriate to the particular project and project phase. The same roles and responsibilities apply to these elements no matter the project phase in which they are performed.
- \*6 The Relative Risk Project Evaluation is performed on all FUDS projects by the executing district at each project phase, even though the evaluation is not repeated at each phase in this table. The HTRW CX performs QA review as requested by CEMP-RF on FUDS projects. The design district may be requested by the customer to perform this evaluation for other DoD projects.
- \*7 SSHPs for contractor conducted investigative activities and SSHPs, Health and Safety Design Analyses (HSDAs) and Safety, Health and Emergency Response (SHER) contract provisions shall be reviewed and accepted by the executing District's Engineering Division and by the District's Safety and Occupational Health Office function if prepared in-house. Remedial Action Construction SSHPs shall be reviewed and accepted by the Construction District's Safety and Occupational Health Office.
- \*8 The Daily Chemical Quality Control Report portion of these reports is sent to the CMQAL for information when used to provide QA support.
- \*9 See ER 1110-1-263 for explanation of the USACE chemical quality assurance program.
- \*10 Individual restoration programs must be consulted to determine the appropriate approval authority for records of decision or other decision docs.

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**A=Approve or accept**, as appropriate. This essentially indicates that all comments have been appropriately handled and the submittal can be finalized and the next stage may proceed.

**E=Execute**; Execute includes performance of the actual activity for or from which a plan is prepared. These activities may be conducted in-house or by contract and includes appropriate quality verification activities by the design district.

**R=Mandatory Review**. For projects which meet the significant project criteria, the documents with the R must be reviewed by the CX.

**BCOE = Biddability, Constructibility, Operability and Environmental Review** by Construction Division per ER 415-1-11.

**CX=Center of Expertise**. The CX for HTRW projects is located in Omaha, Ne. The CX for OE projects is located in Huntsville, AL.

**HTRW=Hazardous, Toxic, and Radioactive Waste**      **OE=Ordnance and Explosives**      **I=For information only**.

**Q=Quality Assurance Oversight**. CQARs and CDQARs from all projects are sent to the HTRW CX. The CX reviews 10% of the reports received.

Table 2 (continued)

**Definitions continued**

**CMQAL=USACE Chemistry & Materials Quality Assurance Laboratory** or other provider requested to perform chemical data quality management activities for a project, including the analysis of split samples and the preparation of Chemical QA Reports. See ER 1110-1-263 and ER 1110-1-8100.

