NEIC

EPA-330/9-89-002

NEIC PROCEDURES MANUAL FOR CONTRACT EVIDENCE AUDIT AND LITIGATION SUPPORT FOR EPA ENFORCEMENT CASE DEVELOPMENT

National Enforcement Investigations Center, Denver

U.S. Environmental Protection Agency



Office of Enforcement

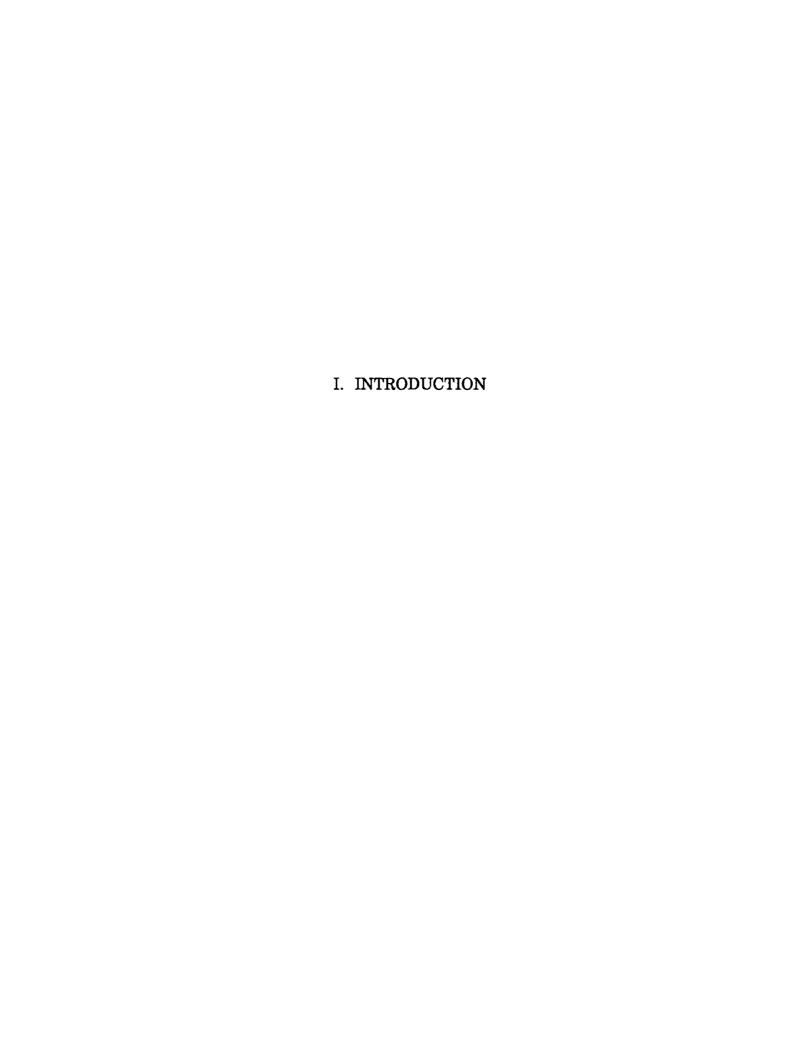
UNITED STATES ENVIRONMENTAL POTECTION AGENCY OFFICE OF ENFORCEMENT

EPA-330/9-89-002

NEIC PROCEDURES MANUAL FOR CONTRACT EVIDENCE AUDIT AND LITIGATION SUPPORT FOR EPA ENFORCEMENT CASE DEVELOPMENT

February 1989

NATIONAL ENFORCEMENT INVESTIGATIONS CENTER Denver, Colorado



CONTENTS

I.	INTRODUCTION 1
II.	LITIGATION SUPPORT FOR CASE DEVELOPMENT
	REQUEST FOR ASSISTANCE
	Work Assignment
	CASE FILE ORGANIZATION
	Waste Transactions Databases
	SAMPLE PROFILES AND REQUEST FOR ADMISSION 15 ADMINISTRATIVE RECORDS
III.	EVIDENCE AUDIT SUPPORT FOR CASE DEVELOPMENT 29
	AUDIT PLANNING
	Evidence Audit Phases
	FIELD INVESTIGATIONS AUDIT
	Requirements Specific to Field Investigations 36
	LABORATORY OPERATIONS AUDIT 50
	Requirements Specific to Laboratory Audits 51

CONTENTS (continued)

	CEAT ROLE IN LABORATORY AUDITS FOR THE NATIONAL CONTRACT LABORATORY PROGRAM 54
	Requirements Specific to the CLP Lab Audit 55
	DOCUMENT CONTROL AUDIT 58
	Requirements Specific to the Document Control Audit
	POTENTIAL RESPONSIBLE PARTY SEARCH AUDIT 65
	Requirements Specific to the PRP Search Audit 65
APF	PENDICES
Α	Field Investigations Audit Checklist
В	Laboratory Operations Audit Checklist
C	Document Control Audit Checklist
D	PRP Search Audit Checklist

Sample Narrative Evidence Audit Report

 \mathbf{E}

CONTENTS (continued)

FIGURES

1	Document Inventory Printout	1
2	Generator by Waste Type Printout	3
3	Waste Type by Generator Printout	4
4	Analytical Summary by Sampling Site	6
5	Analytical Summary by Compound	7
6	Cost Summary Printout	
7	Sample Evidence Profile	J
8	Sample Request for Admission Format	1
9	Administrative Record Index	6
10	Sample 104(e) Tracking Report	7
11	Sample Tag	9
12	Chain-of-Custody Record 40	0
13	Organic Traffic Report (VIAR)	1
14	Inorganic Traffic Report (VIAR)	

I. INTRODUCTION

The Environmental Protection Agency (EPA), through its Office of Enforcement and Compliance Monitoring (OECM), Offices of Regional Counsel, National Enforcement Investigations Center, Regional Environmental Services Divisions, and contractors, executes a program of enforcement of environmental statutes and regulations. The statutes upon which this program is based include: The Federal Water Pollution Control Act (FWPCA), as amended; the Clean Water Act (CWA) of 1977; the Clean Air Act (CAA), as amended: the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended; the Resource Conservation and Recovery Act of 1976 (RCRA); the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986; the Safe Drinking Water Act (SDWA), as amended; and the Toxic Substances Control Act (TSCA). Implementing regulations have been, and continue to be, promulgated according to timetables established by law, a variety of court decisions and consent decrees and administratively established schedules.

The Agency deploys in-house and contractor technical teams to conduct evidence-gathering investigations and inspections and other enforcement-related technical evaluations in support of the enforcement program. These teams include engineers, scientists, technicians, and attorneys, functioning as individual investigators or groups, in offices, laboratories, and field sites. In addition, the Agency performs an oversight and/or shared operating role where enforcement programs have been fully or partially delegated to state agencies.

Technical data, operating and process information, production data, and related information produced or obtained in the course of enforcement inspections, investigations, and evaluations are potential evidence. As such,

they must be (a) reliable, (b) gathered with constitutional safeguards and (c)maintained with integrity. The potential evidence may take any of several forms including a field notebook, film, computer tape, a sample tag, a degradable sample, etc. Typically, a case preparation investigation may generate large volumes of file material, samples, data tabulations and reports. Security and accountability (i.e., chain-of-custody) must be maintained even while the evidence is in shipment.

Cases developed by EPA, pursuant to the environmental statutes for referral to the Department of Justice, must be based upon rigorously documented evidence and supporting data in order to minimize delay in filing, facilitate Discovery proceedings, present a convincing case to the attorneys engaged in pre-trial negotiations, and finally, prevail in the courtroom.

Current document handling procedures are not standardized and the types and volume of documents relating to a case are often overwhelming to the case attorney. It is increasingly seen that a single hazardous waste case may involve 100,000 or more documents. The attorneys are confronted with difficult tasks of assembling and organizing all documents, preparing witness lists and extracting information necessary to prepare interrogatories and conduct depositions. Documents delivered to the attorneys are often poorly organized, not inventoried and come from numerous Agency and external sources (i.e., Regional and Headquarters divisions and branches, Department of Justice, state offices, and contractors). Records obtained from the opposition are often so voluminous or disorganized that it is difficult for the case attorney to effectively review them. Lack of sufficient assembly and organization of this material becomes obvious to the opposition at the time of Discovery, during settlement and negotiation discussions, or at trial. The consequences are to unknowingly expose case strategy, to inadvertently release privileged or confidential material, or to be unaware of documents that strengthen or weaken the case. The Agency position is vulnerable if the litigation team does not have confidence in the integrity of the supporting documentation. The case file must be complete and organized for rapid and efficient access.

The National Enforcement Investigations Center has for many years imposed internal evidence auditing procedures on case files developed in the course of investigations conducted by the NEIC staff. These audits assist case attorneys in their preparations for pre-trial and trial phases of Agency litigation efforts. The evidence audit system is designed to: (1) establish an overall case document control system, (2) provide quick and complete access to records, and (3) ensure admissibility of the evidence. The system is flexible to accommodate the increase of material as the case progresses and is adaptable to changes in case strategy.

With the advent of hazardous waste programs and the conduct of a major portion of the Agency's hazardous waste site investigations by contractors, NEIC was tasked to make evidence audits and litigation support available to Regional and Headquarters staffs for case file development.

The Contractor Evidence Audit Team (CEAT) is available to Regional Counsel Offices and state enforcement programs to perform evidence audits and to assist EPA, state, or contractor staffs in establishing chain-of-custody and document control systems. Points of contact between EPA and the CEAT, for administrative matters, will be EPA's Contracting Officer and the contractor's Project Manager. For operational assignments, direction and delivery of completed work, contacts will be EPA's Project Officer or Deputy Project Officer and the CEAT Leader.

This manual is intended to provide operational guidance to the CEAT; the Project Officer, Deputy Project Officer and their technical staffs; users of the service; and other agencies having related needs.

II. LITIGATION SUPPORT FOR CASE DEVELOPMENT

II. LITIGATION SUPPORT FOR CASE DEVELOPMENT

The CEAT provides a service to EPA Regional and Headquarters legal and program offices for assistance in management of case file systems. The service supports EPA efforts in managing large volumes of documents generated in-house or obtained from state, local or industrial sources. The work effort includes document sorting, organizing, numbering, inventorying, reviewing, and developing computer databases for information storage and retrieval. The CEAT also provides a service to track the history and chain-of-custody for samples collected as evidence, and services to research and maintain specific subsets of information pertinent to the resolution of cases.

Support for cases involving large numbers of documents is labor and resource intensive. The Project Officer maintains strict control of the project phases to ensure that objectives specified in the work plan are completed in a timely and efficient manner. All work assigned to the CEAT must be addressed in the work plan. Phases of case preparation assistance are:

- Request for Assistance
- Project Planning/Development
- Work Assignment
- Workplan
- Work Product and Reporting
- Project Completion

Work hours and costs incurred will be tracked on a project-by-project basis for use in cost recovery actions.

REQUEST FOR ASSISTANCE

Each project begins with a request for assistance directed to the NEIC Project Officer. A verbal contact must be followed by a written request. The Project Officer or Deputy must verify that the request is within the scope of work of the CEAT contract. A written response to each request will be provided and will identify NEIC and CEAT contacts to coordinate the work. A project file will be initiated at this point and all documents pertaining to the work will be included in that file. A CEAT project number is issued for each case for document and cost accounting and, if the request involves NEIC support, an NEIC project number may be assigned. Case preparation assistance may require a rapid response and quick turnaround on the work product. CEAT services can be initiated within a few days if an emergency situation exists.

Requests for litigation support are received from:

Administrator Deputy Administrator **Assistant Administrators** Senior Enforcement Counsel) with the knowledge and Inspector General) concurrence of the Headquarters Office Directors) Assistant Administrator Headquarters Division Directors) for Enforcement and Department of Justice, Headquarters Compliance Monitoring Regional Administrators Deputy Regional Administrators Regional Counsels Regional Division Directors with the knowledge and U.S. Attorney's Offices concurrence of the State and local program directors Regional Counsel

PROJECT PLANNING/DEVELOPMENT

A meeting or conference call will be held with the principal parties involved (NEIC, CEAT, and requester). The following will be established:

- Project title and location
- Enforcement objectives and regulations involved
- Name, phone number, and address of Regional or Headquarters contact
- Nature of work and specific objectives required
- Time constraints and legal deadlines to be met
- Justification for priority treatment
- Location of all document sources and contacts
- Volume of records to be managed
- Assessment of physical condition of records and degree of organization already accomplished
- Location(s) of work to be performed
- Requirement for computer services
- Amount of participation by requester
- Confidentiality requirements
- Work product required

A record of this meeting or call will be prepared and placed in the file.

<u>LITIGATION SUPPORT PHASES</u>

Work Assignment

The Project Officer or Deputy will issue a written work assignment to the CEAT leader including contacts, objectives, schedules, and reporting requirements. A verbal assignment may be made in quick response situations and will be followed in writing.

<u>Workplan</u>

The CEAT task leader will prepare a draft workplan for the project approved by the team leader. The draft plan will be submitted to NEIC for approval and to the requester for comment. Once acceptable to all participants, it will serve as the basis for completing the work. A final plan will be prepared, a copy placed in the file, and work initiated.

Any deviation from the workplan by the CEAT or directed by the requester must be approved by the NEIC Project Officer.

Work Product and Reporting

The work product will be determined for each case and may be a written report or a memorandum stating that each objective has been completed. Written communication between the CEAT and the requesting office must be routed through the NEIC Project Officer or Deputy.

Monthly progress reports for each project will include complete status information and will be delivered to the Project Officer within 15 working days of the end of the month.

Project Completion

The CEAT leader will notify the NEIC Project Officer that each objective for the assignment has been completed. A memo transmitting any reporting requirements or computer printouts will be prepared by NEIC and sent to the

requester. Additional work required by the requester will be treated as a new assignment.

Litigation support services are designed to ensure completeness and integrity of the supporting case documentation. This process is intended to organize, inventory and summarize documents prior to referral to the Department of Justice. EPA cases vary dramatically in volume and type of records generated. Smaller and less complex cases present fewer document management problems; however, all cases require the use of well-organized Agency and other documents. Litigation support services conducted by the CEAT include: (1) case file organization, (2) development of evidentiary computer databases, (3) preparation of sample profiles, and (4) other evidentiary support activities.

CASE FILE ORGANIZATION

Proper management of documentary evidence is a critical element in enforcement case preparation. The CEAT provides assistance to ensure that all case-related documents are gathered, organized, and inventoried for use by the litigation team and for production during Discovery. The document gathering phase requires identification of all parties participating in the investigation. The case attorney must instruct each division, branch or contract group to produce their files. The CEAT assembles the records and inventories each group's files. In order to facilitate document retrieval, the CEAT extracts bibliographic information from each record and enters it into a computer database. The database typically contains: (1) the name of the author, (2) author's organization, (3) document date, (4) addressee, (5) document type, (6) document title, and (7) number of pages. Other information is recorded at the request of the case attorney. The database can be searched on these categories for document retrieval. Document numbers

are stamped to serve as a file locater and to ensure file completeness and accountability. The CEAT can also perform key wording for documents considered critical to case development. An example of a document inventory printout is shown in Figure 1.

Case file organization may employ the use of image processing and/or full-text inventories. These processes will enhance the flexibility and ease of storage and retrieval. Basic extraction procedures will vary with each process but the seven data elements above would be provided, at a minimum.

EVIDENTIARY DATABASES

The case development process may require summaries of technical information. The CEAT provides a wide variety of computerized databases for this purpose. Information summaries can be tailored to meet the needs of specific cases. Examples of evidentiary databases include: (1) waste transactions at hazardous waste sites, (2) summaries of analytical data, and (3) summaries of costs for cost recovery actions.

Waste Transactions Databases

Many hazardous waste facilities have operated over a period of years and have been involved in thousands of transactions with hundreds of waste transporters and generators. Billing invoices, shipping manifests, account ledgers, and other documents not only establish the "paper trail" leading to hazardous waste generators, but also provide information needed to evaluate the degree of hazard presented by the waste facility. This information may prove necessary to enforcement personnel in finding potentially responsible parties and in formulating an adequate remedial plan. EPA must be able to identify what wastes were shipped by the generator, the quantities of wastes

Figure 1 DOCUMENT INVENTORY

DOCUMENT TYPE: Letter # PAGES: 3 DOCUMENT #: 12000 TITLE/DESCRIPTION: Information for May WITHHELD REASON Generator/Transporter Not Resp. Meeting FROM: <u>TO</u>: PRODUCED SIGNED ?: Yes PROGRAM FILE CODE: 1 Signature, if different from PROGRAM FILE author: Record #: 1 **DOCUMENT TYPE:** Memo # PAGES: 2 DOCUMENT #: 12004 TITLE/DESCRIPTION: Contractor work **WITHHELD** REASON on Document Inventory Assist. TO: FROM: **PRODUCED** SIGNED ?: No PROGRAM FILE CODE: 2 ENFORCEMENT FILE Record #: 2 **DOCUMENT TYPE:** Report # PAGES: 47 **DOCUMENT #: 11006 *** TITLE/DESCRIPTION: Pesticide Concs. **WITHHELD** REASON At Wk Bud <u>TO</u>: FROM: **PRODUCED** SIGNED ?: Yes PROGRAM FILE CODE: 3 Signature, if OFF REG CSL different from

Record #: 3

author:

shipped, which of those wastes are "hazardous," and how those wastes were treated, stored, and/or disposed. CEAT services provide review and summary of waste information and development of computer systems to list the findings. Examples of database printouts are shown in Figures 2 and 3.

Summary reports from the database can be prepared by sorting and listing data. Some of the important applications of information stored within the database are:

- A list of generators disposing of wastes at a waste facility
- A list of generators based on the quantity of wastes disposed of by them at the waste facility
- A list of generators based on the types of wastes disposed of by them at the facility
- The frequency of facility use by a generator
- The total quantities and types of waste present at the site

For example, knowing which generators disposed of the largest quantities of hazardous wastes found migrating off-site via groundwater or contaminated leachate may aid in the assessment of civil or criminal penalties. Responsibility for the disposal of specific chemical constituents can be traced to the particular generator.

Analytical Summary Databases

CEAT services are provided to summarize and list analytical data on computerized systems. Analyses from samples collected during enforcement investigations can be arrayed in a variety of ways. Examples include lists of:

Figure 2
GENERATOR BY WASTE TYPE

Generator (Total Gallons)	Waste Type	Volume (Gallons)	% of Total Volume	Ledger/ Manifest
World Chemical (16,537 gallons)	Waste sulfuric acid	1,310	7.9%	50/7713 5/3983 85/5574
	HCL acid	8,230	49.8%	63/8435
	Soda ash	221	1.3%	70/3181
	Copper sulfate	1,565	9.5%	45/1924
	Electroplate sludge	3,666	22.2%	5/939 76/6070
	Ammonium hydroxide	1,545	9.3%	34/2347 48/3886
Chemsafe Recycling (10,591 gallons)	Waste sulfuric acid	428	4.0%	78/6949
	HCL acid	2,412	22.8%	34/9982
	Sodium cyanide	394	3.7%	32/7416
	Waste filter cake	2,296	21.7%	20/2880
	Waste oil	5,061	47.8%	83/992

Figure 3
WASTE TYPE BY GENERATOR

Waste Type (Total Gallons)	Generator	Volume (Gallons)	% of Total Volume	Ledger/ Manifest
Waste sulfuric acid (46,251 gallons)	H&L Plastics	1,946	4.2%	87/4908 84/8933 79/1886
	Twins Solvent	4,281	9.3%	77/8160 77/6457
	Morrison Mfg. Co.	5,864	12.7%	33/2310 25/9579
	American Pharmaceutical	4,487	9.7%	28/7294 83/8818 68/1403
	Sturbridge Steel Co.	13,160	28.5%	3/8297 32/7997 43/9659 17/8923
	Auto-Glass, Inc.	16,513	35.6%	62/3152

- All compounds detected at a given sample location
- Frequency of occurrence of a particular compound at all sample locations
- Results of various sampling episodes over time
- Ranking of compounds by concentration or occurrence
- Compounds analyzed for but not detected

Quality control and quality assurance information can also be added to the database. Precision, accuracy, detection limit, and codes indicating acceptability of data are common data quality indicators. Examples of printouts of analytical summaries are shown in Figures 4 and 5.

Cost Recovery Databases

The CEAT work provides for development of databases to list cost information for cost recovery actions. The CEAT reviews cost documents and extracts data for entry into the computer. Printouts are prepared listing the case name, the organization incurring costs, a breakdown of itemized costs, amounts paid, and name of payor. An example of a cost summary printout is provided in Figure 6.

SAMPLE PROFILES AND REQUEST FOR ADMISSION

Sample profiles are a graphic representation of sample history from the time of collection through analysis and reporting. The profile tracks the chain-of-custody, identifies names and dates of possession, lists documents verifying possession, and presents analytical tasks performed.

The sample profile is intended to support the admissibility of evidence and to identify potential weaknesses in the chain-of-custody or integrity of

Figure 4

ANALYTICAL SUMMARY BY SAMPLING SITE

Site (10) SMO Sample No. Lab	Case No. Sampling Date 09/14/83 Lab No.		Date 09/14/83 Agency USEPA	Well (10 OW - 1 Site Well Agency USEPA/FIT Analysis Date 10/08/83			
Priority Pollutants - Organic Compounds							
Acids PPB DQ Base/Neutrals PPB							
2,4,6-Trichlorophenol	100	UV	4-Bromophenyl phenyl ether	100	UV		
P-Chloro-m-cresol	100	UV	Bis(2-chloroisoprophyl)ether	200	UV		
2-Chlorophenol	100	KV	Bis(2-chloroethoxy) methane	200	UV		
2,4-Dichlorophenol	100	UV.	Hexachlorobutadiene	100	UV		
2,4-Dimethylphenol	100	UV	Hexachlorocyclopentadiene	100	UV		
2-Nitrophenol	200	KI	Isophorone	3,000	V		
4-Nitrophenol	500	KI	Naphthalene	100	KV		
2,4-Dinitrophenol	500	UI	Nitrobenzene	100	UV		
4,6-Dinitro-o-cresol	200	UV					
Pentachlorophenol	100	UV	n-nitrosodiphenylamine	100	UV		
Phenol	590	V	n-nitrosodipropylamine	100	UV		
			Bis(2-ethylhexyl)phthalate	100	UV		
Base/Neutrals			Benzyl butyl phthalate	100	UV		
·			Di-n-butyl phthalate	100	UV		
Acenaphthene	100	UV	Di-n-octyl phthalate	100	UV		
Benzidine	100	UV	Diethyl phthalate	100	UV		
1,2,4-Trichlorobenzene	100	KV	Dimethyl phthalate	110	V		
Hexachlorobenzene	100	UV	Benzo(a)anthracene	100	UV		
Hexachloroethene	100	UV	Benzo(a)pyrene	200	UV		
Bis(2-chloroethyl)ether	100	UV	Benzo(b)fluoranthene	200	UV		
2-Chloronaphthalene	100	UV	Benzo(k)fluoranthene	200	UV		
1,2-Dichlorobenzene	2,400	UV	Chrysene	200	UV		
1,3-Dichlorobenzene	100	KV	Acenaphthylene	100	UV		
1,4-Dichlorobenzene	600	V	Anthracene	100	UV		
3,3'-Dichlorobenzidine	100	UV	Benzo(ghi)perylene	200	UV		
2,4-Dinitrotoluene	200	UV	Fluorene	100	UV		
2,6-Dinitrotoluene	200	UV	Phenanthrene	100	UV		
1,2-Diphenylhydrazine	200	UV	Dibenzo(a,h)anthracene	200	UV		
Fluoranthene	100	UV	Indeno(1,2,3-cd)pyrene	200	ÜV		
4-Chlorophenyl phenyl	ether 100	UV	Pyrene	100	UV		
	Nonpriority Pollutants Organic Compounds						
Benzoic Acid	1,400	I	4-Chloroaniline	500	UV		
2-Methylphenol	50	UV	Dibenzofuran	100	UV		
4-Methylphenol	50	KV	2-Methylnaphthalene	200	UV		
2,4,5-trichlorophenol	1,000	UV	2-Nitroaniline	1,000	UV		
Aniline	50	UV	3-Nitroaniline	1,000	UV		
Benzyl alcohol	200	UV	4-Nitroaniline	1,000	UV		

Figure 5

ANALYTICAL SUMMARY BY COMPOUND Sampling Data from September 13 and 14, 1983

Sample Source	Concentration (PPB)	DQ
Parameter: P-Chloro-m-c	resol	
OW - 1 site well	100	$\mathbf{U}\mathbf{V}$
OW - 2 site well	100	UL
OW - 4 site well	100	UV
IW - 1 interceptor well	100	UL
IW - 2 interceptor well	100	\mathtt{UL}
IW - 3 interceptor well	100	UL
MW - 1B monitor well	100	UV
MW - 2B monitor well	100	\mathtt{UL}
MW - 3B monitor well	100	UV
MW - 4B monitor well	100	UV
MW - 4B (D) monitor well duplicate sample	100	UL
MW - 5B monitor well	100	UV
MW - 6B monitor well	100	UV
MW - 7B monitor well	100	UV
MW - 7B (D) monitor well duplicate sample	100	UV
MW - 8B monitor well	100	UV
MW - 9B monitor well	10	UL
MW - 10B monitor well	10	\mathtt{UL}
MW - 11B monitor well	10	UL
MW - 12B monitor well	10	UL
MW - 13B monitor well	10	UV
MW - 13B (D) monitor well duplicate sample	10	UV
MW - 14B monitor well	10	UL

Figure 6
COST SUMMARY PRINTOUT

PROJECT	PAYMENT N	NO. 2 CON	2 CONTRACT NO.	
PAYOR: US EPA	PAYEE:			
	Current	Comments	DC. No.	
Amount Requested: Date: Amount Paid:	125274.99 04/30/87 125274.99		286	
Amount Withheld	.00			
Date: Cost Type:	00/00/00 Contracts	Work period: 4-3 through 4-30-82	0	
Work performed:	Site preparation, waste loading, disposal and monitoring			
Cost Categories	Current	Comments	DC Na	
Personal:	32727.54			
Equipment:	27402.50			
Transport:	12080.00			
Mat. and Prod.:	12723.15			
Disposal:	40341.80			
Miscellaneous:	.00			

samples. The CEAT works with the case attorney to review documents or obtain other records which could rehabilitate the evidence. The profile can also be used to produce a potential witness list for all people handling the sample. An example of a sample profile is shown in Figure 7.

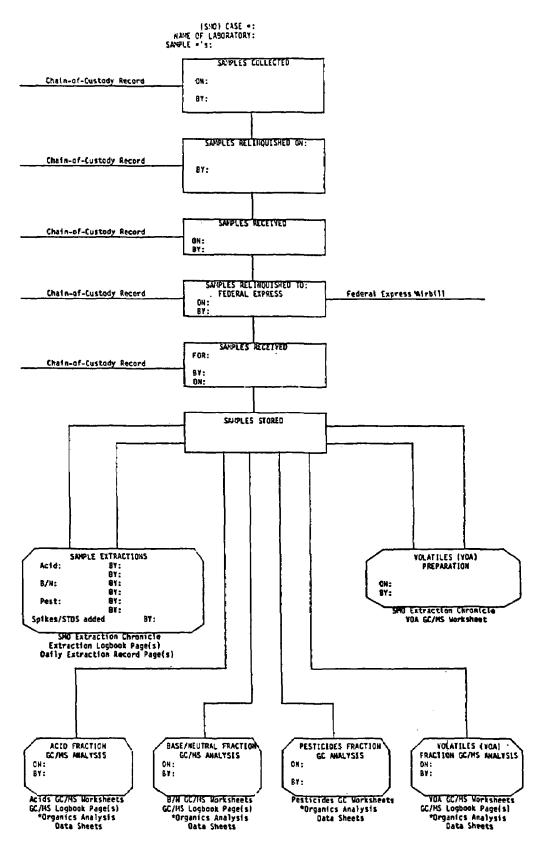
Sample-related information, such as the chain-of-custody information presented in the above-mentioned sample profiles, as well as sampling protocols, analysis protocols, location maps, and analytical summaries may also be presented in a Request for Admission format. In a typical case involving numerous samples, a computerized database is developed to facilitate the work effort. The Requests are prepared in a formal predescribed format, as designed and approved by the case attorney [Figure 8]. The attorney typically has already planned Requests related to other aspects of the litigation. The draft Request for Admission, which the CEAT prepares, will follow the same general format.

ADMINISTRATIVE RECORDS

The administrative record (AR) is the completed compilation of documents that a state or federal agency considered or relied on in selecting a response action at a hazardous waste site. The AR is required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, and allows the public to participate in and comment on the selection of the action.

The contract provides assistance in developing the AR by compiling, inventorying, indexing, and screening hundreds, sometimes thousands, of site documents generated by agencies and private parties. These documents make

SAMPLE EVIDENCE PROFILE



^{*} Results Tabulation Form

YOA fraction does not require extraction

Samples may be stored for a warying period after completion of analysis based upon sample type and contract

Figure 8

SAMPLE REQUEST FOR ADMISSION FORMAT REQUEST FOR ADMISSION NUMBER _____

to EP.	The following parts of the request, numbered I.A. through II.J., relate A sample number
I.A.	That the analytical results are accurately reported in the document referenced in II.D.
I.B.	That the analytical results as reported in the document referenced in II.D., are admissible into evidence.
I.C.	That the analytical results as reported in the document referenced in II.D., accurately reflect the presence or absence of chemical compounds in the sample at the time the sample was analyzed.
I.D.	That the analytical results as reported in the document referenced in II.D., accurately reflect the concentrations of chemical compounds in the sample at the time the sample was analyzed.
I.E.	That the analytical results as reported in the document referenced in II.D., accurately reflect the presence or absence of chemical compounds in the matrix from which the sample was taken at the time the sample was collected.
I.F.	That the analytical results as reported in the document referenced in II.D., accurately reflected the concentrations of chemical compounds in the matrix from which the sample was taken at the time the sample was collected.
	If your response to all the parts of the request, numbered I.A. through s to admit, do not continue with the remainder of this request. If not, one with the remainder of this request.
II.A.	That the sample was taken from and sampled by methods described in Exhibit
II.B.	That the sample was handled and transported in a manner consistent with the methods described in Exhibit
II.C.	That the sample was analyzed by methods described in Exhibit

	REQUEST FOR ADMISSION NUMBER (continued)
II.D.	That the analytical results for the sample are accurately reported in Exhibit
II.E.	That on, the sample was collected from which is accurately depicted in
	Exhibit by
	[Reference document (s):]
II.F.	That on, the sample was transferred from
	[Reference document(s):]
II.G.	That on, the sample was shipped to by
	[Reference document(s):]
II.H.	That on, the sample was received atby
	[Reference document(s):]
II.I.	That the sample was prepared and analyzed as follows:
	PREPARATIONS
	was performed on by
	[Reference document(s):]
	was performed on by
	[Reference document(s):]
	was performed on by
	[Reference document(s):]
	was performed on by
	[Reference document(s):]
	was performed on by
	[Reference document(s):]

REQUEST FOR ADMISSION NUMBER		_ (continued)
PREPARATION (continued)		
was performed on [Reference document(s):	by	·
was performed on [Reference document(s):	by	·
was performed on [Reference document(s):	by	·
was performed on [Reference document(s):	by]
ANALYSES		
was performed on [Reference document(s):	by	·]
was performed on [Reference document(s):	by]
was performed on [Reference document(s):	by]
was performed on [Reference document(s):	by	·]
was performed on [Reference document(s):	by]
was performed on [Reference document(s):	by	
was performed on [Reference document(s):	by	·
was performed on [Reference document(s):	by]
was performed on		 1

	REQUEST FOR ADMISSION NUMBER (continued)
	ANALYSES (continued)
	was performed on by [Reference document(s):]
	was performed on by [Reference document(s):]
	was performed on by [Reference document(s):]
II.J.	That each of the following documents which can be found in

up the "site file." Pertinent documents in the site file are selected and incorporated into the site's AR.

As the AR is developed, both a computerized site file index and a computerized AR index are produced. By producing both indices, the Agency is able to quickly review the "universe" of documents pertaining to a site and, therefore, evaluate the completeness of the AR accurately. An example of an Administrative Record report can be found in Figure 9.

104(e)/NOTICE LETTER TRACKING SYSTEM

104(e)/Notice Letter Tracking Systems are developed to assist the user with accurate and timely information regarding the transmittal and receipt of correspondence between the USEPA and potentially responsible parties (PRPs). The contractor will develop databases that track, locate, and summarize correspondence letters, as well as PRP replies to 104(e) information requests, notice letters, and special notice letters. In addition, manipulation of the database enables the user to find the address of the PRP, the PRP contact and address, the date letters are mailed to the PRP, the date letters are received by the PRP, the date the replies are received by EPA, and a summary of those replies.

Individual systems can be modified to include "tickler" systems that alert the user to upcoming due dates, adaption of Microsoft Word for case narratives of each PRP, and keyword summaries for easy location of similar information. An example report from a 104(e) tracking system can be found in Figure 10.

EASTERN SURPLUS SITE - ADMINISTRATIVE RECORD INDEX PAGE: 1 07/07/88

DATE: 02/05/86

PAGES: 7

CATEGORY: 1.2 PRE-REMEDIAL - PRELIMINARY ASSESSMENT

DOCUMENT NUMBER: 0001

TITLE/SUBJECT: DISCUSSION OF THE PRELIMINARY ASSESSMENT OF THE EASTERN

SURPLUS COMPANY SITE. EPA PRELIMINARY ASSESSMENT FORMS

AND A MAP OF THE AREA ARE ATTACHED.

: BERTOCCI, CYNTHIA S.

ORGANIZATION: STATE OF MAINE - DEPARTMENT OF ENVIRONMENTAL PROTECTION

ADDRESSEE : SMITH, DON

DRGANIZATION: U.S. EPA - REGION I

DOCUMENT TYPE: MEMO

DATE: 10/28/86 PAGES: :

CATEGORY: 1.2 PRE-REMEDIAL - PRELIMINARY ASSESSMENT

DOCUMENT NUMBER: 0002

TITLE/SUBJECT: PRELIMINARY ASSESSMENT CHECK LIST FOR EPA IMMEDIATE REMOVAL

ACTION AT THE EASTERN SURPLUS COMPANY SITE.

: NOT INDICATED AUTHOR

ORGANIZATION: U.S. EPA - REGION I

ADDRESSEE : NOT INDICATED ORGANIZATION: NOT INDICATED

DOCUMENT TYPE: REPORT/STUDY

DATE: 04/03/86 PAGES: :

CATEGORY: 1.3 PRE-REMEDIAL - SITE INSPECTION

DOCUMENT NUMBER: 0001

TITLE/SUBJECT: TRIP REPORT FOR THE APRIL 3, 1986 VISIT TO THE EASTERN

SURPLUS SITE TO ASSESS SITE CONDITIONS AND TO PLAN FUTURE

CLEAN-UP ACTIVITIES.

: BERTOCCI, CYNTHIA S.

ORGANIZATION: STATE OF MAINE - DEPARTMENT OF ENVIRONMENTAL PROTECTION

ADDRESSEE : FILE

ORGANIZATION: NOT INDICATED

DOCUMENT TYPE: MEMO

Figure 10 SAMPLE 104(e) TRACKING REPORT

01/04/89 LONE PINE - FINAL REPORT PAGE: 1

COMPANY NAME:

3-M CORPORATION

A.K.A.:

MINNESOTA MINING AND MANUFACTURING COMPANY

INSURANCE CO.:

MULTIPLE (1954-1982)

TYPE OF BUSINESS: A/V, MAGNETIC, ELEC. TAPE, HEAT TUBING

TYPE OF ENTITY:

MANUFACTURER

IN OPERATION:

YES

RESPONSE STATUS:

DATE SENT BY EPA: 04/11/88 INITIAL RESPONSE: 05/27/88 EPA FOLLOW-UP: 08/09/88 FINAL RESPONSE: Ø8/26/88

RESPONSE AUTHOR:

SUSAG, RUSSELL H.

TITLE:

DIR. ENV. REGULATORY AFFAIRS

DOCUMENT(S):

CORRESPONDENCE, CONTRACTS, AND AGREEMENTS WITH THE LONE PINE

CORPORATION

GEN/TRANS:

GENERATOR

WASTE TYPES:

INDUSTRIAL WASTE

PETROLEUM/PETROLEUM PRODUCTS

CHEMICAL WASTE HAZARDOUS WASTE

HAZARDOUS WASTE CONTAINERS

CHEMICAL SOLVENTS CERCLA WASTE MATERIAL

ADMITS DISPOSAL: YES

TREATMENT:

YES

STORAGE:

NO

COMMENTS:

DISCREPANCIES BETWEEN ESTIMATES OF WASTE TYPE QUANTITIES IN

5/26/82 AND 1988 RESPONSES. HOLD NJPDES PERMIT NO.

NJ0004359. PLANT RECORDS INDICATE ONLY THE TWO FREEHOLD

PLANTS UTILIZED LONE PINE.

Figure 10 (Cont.)
SAMPLE 104(e) TRACKING REPORT Ø1/Ø4/89 LONE PINE SUMMARY DATA PAGE: 1.1 ________ TRANSPORTER: FREEHOLD CARTAGE, INC. WASTE TYPE: EMPTY DRUMS, PAPER & WOOD PRODUCTS QUANTITY: UNKNOWN LONE PINE DISPOSAL: YES DATES: 01/01/73 - 12/31/79TRANSPORTER: FREEHOLD CARTAGE, INC. WASTE TYPE: ELECTRICAL TAPE CONVERTING WASTE QUANTITY: UNKNOWN LONE PINE DISPOSAL: YES DATES: 01/01/73 - 12/31/79 TRANSPORTER: FREEHOLD CARTAGE, INC. WASTE TYPE: WASTE ELECTRICAL TAPE COATINGS CONSTITUENTS: ADHESIVES IN MINERAL SPIRITS & TOLUENE QUANTITY: **UNKNOWN** LONE PINE DISPOSAL: YES DATES: 01/01/73 - 12/31/73TRANSPORTER: FREEHOLD CARTAGE, INC. MEK & TOLUENE-CONTAMINATED MATERIAL WASTE TYPE: QUANTITY: UNKNOWN LONE PINE DISPOSAL: YES DATES: 01/01/73 - 12/31/73

TRANSPORTER: FREEHOLD CARTAGE, INC.
WASTE TYPE: WASTE TRICHLOROETHYLENE

QUANTITY:

YES

LONE PINE DISPOSAL:

01/01/73 - 12/31/73

TRANSPORTER: WASTE TYPE:

FREEHOLD CARTAGE, INC.

WASTE MINERAL OIL

QUANTITY:

UNKNOWN

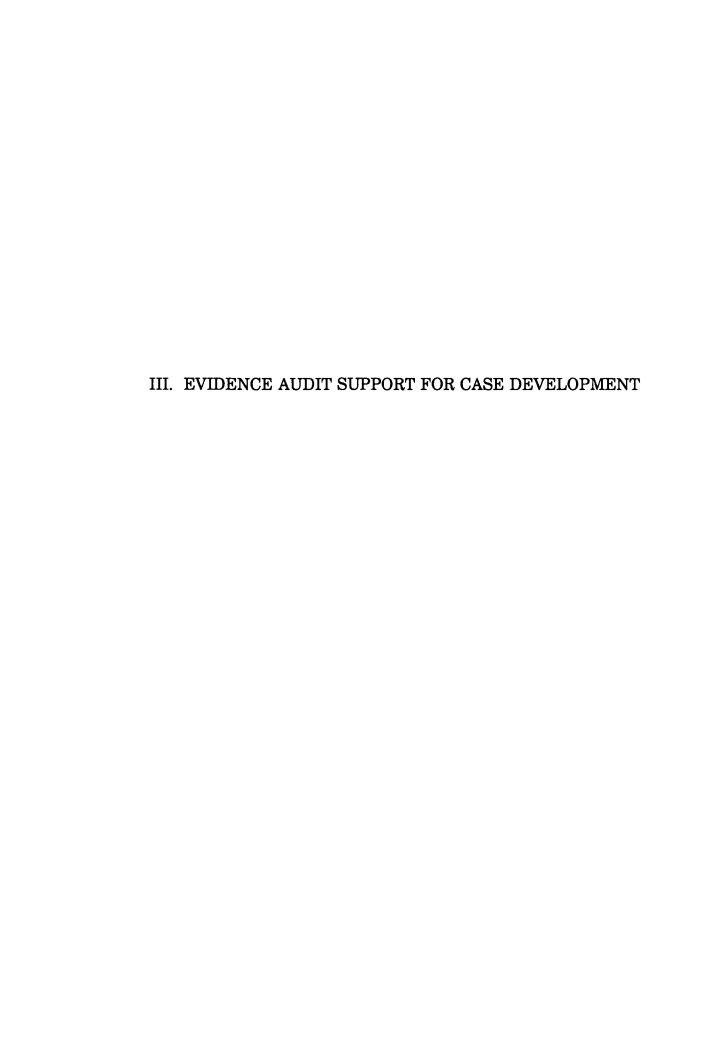
UNKNOWN

LONE PINE DISPOSAL:

YES

DATES:

01/01/73 - 12/31/73



III. EVIDENCE AUDIT SUPPORT FOR CASE DEVELOPMENT

The work of the CEAT is to investigate adherence to procedures for chain-of-custody, document control and security of evidence by enforcement investigators and laboratories. The audits performed usually consist of collecting raw data pertaining to field investigations and laboratory activities, recording the data and observations on checklists, preparing a summary report, and testifying in support of the authenticity of evidence presented by the contract personnel. EPA employees may analyze the data supplied and may spot check the performance of the team.

Requests for audits must be directed to the NEIC Project Officer. Verbal contacts must be followed up in writing. The Project Officer or Deputy verifies that the request is within the scope of work of the CEAT contract. A written response to the requestor will state the NEIC and CEAT contacts who will coordinate the work. A project file shall be initiated and all documents pertaining to the project shall be included in that file. A CEAT project number shall be assigned and, if NEIC support is required, an NEIC project number may be assigned.

Requests will be accepted from:

Administrator
Deputy Administrator
Assistant Administrators
Senior Enforcement Counsel
Inspector General
Headquarters Office Directors
Headquarters Division Directors
Department of Justice, Headquarters
Regional Administrators
Deputy Regional Administrators

-) with the knowledge and) concurrence of the) Assistant Administrator
-) Assistant Administrator) for Enforcement and
-) Compliance Monitoring

Regional Counsels
Regional Division Directors
U.S. Attorney's Offices
State and Local Program Directors

) with the knowledge and) concurrence of the) Regional Counsel

Evidence Audit assignments will be issued, in written form, by the Project Officer or Deputy except in urgent situations requiring immediate response by the contractor. Any oral assignment will be followed by written confirmation at the earliest practical time.

Assignments will normally be made in terms of:

- Field investigations audit
- Laboratory operations audit
- Document control audit
- PRP search audit
- Combinations of the above

Field investigation audits, laboratory operations audits, document control audits, and PRP search audits are to be conducted according to the checklists and criteria provided in Appendices A through E. A document control audit, frequently a component of the other types of audits, is a "desk top" audit of field notebooks, chain-of-custody records, and other documents located in the EPA Regional Office, Contractor's field offices, or appropriate state agency offices.

Checklists will be submitted to the Project Officer within ten (10) working days following completion of the audit. The checklist submission will be accompanied by a narrative report which will summarize findings, provide observations not covered by the checklists, identify all audit documents, and

contain a statement of opinion by the CEAT management. A sample narrative report is included as Appendix E.

Audit teams will be tailored to meet the needs of the EPA enforcement programs and priorities. A field investigations audit may require the services of an engineer or technician while a laboratory operations audit requires a chemist or person familiar with laboratory procedures. Teams of two or three persons may be formed to conduct more complex audits.

The composition of audit teams will be determined by the Project Officer or the Deputy Project Officer (DPO) in consultation with the CEAT leader. The CEAT must maintain a credible internal quality control mechanism. EPA does not expect that each auditor be a CPA, nor that each team include a CPA; however, upper management is expected to exercise internal controls and participatory oversight such that they can certify to EPA that the work of the CEAT meets EPA requirements. Each set of checklists and the summary report will include an opinion to that effect by the team leader.

At the conclusion of each audit, the audit plan, checklists, logbooks, and summary report, together with any related data or documents, will be submitted to the Project Officer. After review by the Project Officer, copies will be provided to the Regional Counsel for inclusion in the case files. Any material for which a claim of confidentiality has been made will be transferred to the appropriate Document Control Officer. All audit material is evidence and CEAT members are subject be to called as witnesses. They must comply with Discovery requests, warrants, subpoenas, or court orders for any case which they audit.

AUDIT PLANNING

The Project Officer maintains continuing liaison with Regional and Headquarters enforcement officials to identify investigations most likely to proceed to litigation and will prioritize those cases for auditing. When possible, the audits will be scheduled to minimize travel time and expenses. The Project Officer will confer frequently with the CEAT leader to establish schedules and review progress.

As audits are scheduled, the Project Officer will arrange for the CEAT to receive a copy of the plan of investigation. The project plan details the project's scope, logistics, and schedules. Items addressed in the project plan include:

- 1. Objectives
- 2. Background information
- 3. Survey methods, including sampling locations, schedules and procedures, analytical requirements, quality control program, etc.
- 4. Process data to be collected
- 5. Personnel and equipment requirements
- 6. Safety program and equipment
- 7. Chain-of-custody and document control procedures

With the exception noted below, an Audit Plan shall be developed by the CEAT leader in coordination with the project coordinator assigned to the investigation that is to be audited. The Project Officer may, on occasion, direct that an unannounced audit be performed. The CEAT leader must, insofar as possible, cause the audit schedule to conform to the schedule of the investigator(s) being audited. The evidence audit should not cause inordinate

delays or otherwise inhibit the execution of the investigation, laboratory operation, etc.

The CEAT personnel must conform to the safety regimen imposed by the project coordinator (i.e., same safety clothing, equipment, and procedures are to be used). The audit plan should include the statement of clothing, equipment, and procedures to be employed.

The Audit Plan will be reviewed by the Project Officer or DPO and, when approved, will become the authorization for the CEAT to proceed. Verbal authorization may be given by the Project Officer or DPO if followed by a written authorization.

Evidence Audit Phases

Evidence audits provide for handling physical and documentary evidence obtained during field, lab, and case file investigations, on-site inspections, or remedial actions. The audit addresses the investigator's adherence to established policies and procedures for evidence handling, requirements of a project plan, and/or specifications in a contract or consent decree. In the absence of specified requirements for a project, the CEAT shall conduct the audit in accordance with NEIC policies and procedures for document control and chain-of-custody.

Work hours and costs incurred by the CEAT will be tracked on a project-by-project basis for use in cost recovery actions.

Audit phases are:

- Request (see page 4)
- Work assignment
- Workplan
- Audit preparation
- On-site audit
- Reporting

Work Assignment

The Project Officer or Deputy will issue a written work assignment for each audit. A verbal assignment may be made in emergency situations but will be followed in writing. The assignment will normally include:

- Name(s), address(es), and phone number(s) of contact(s)
- Project location(s)
- Objectives of the audit
- Audit standards or requirements
- Schedules
- Reporting requirements

<u>Workplan</u>

The CEAT task leader will prepare a draft workplan for submission to NEIC and the requestor. Once accepted by all participants, it will form the basis for completing the work. Any deviation from the workplan must be approved by the NEIC Project Officer.

Audit Preparation

The auditors will review project plans, standard operating procedures, safety plans, or other documents supplied by the requestor for background information. Travel will be planned and audit logbooks and checklists prepared. Safety equipment will be taken as needed.

On-site Audit

A briefing is scheduled with the audit team leader prior to site entry. The auditors will describe the audit process and then obtain updated information on the field, lab, or case file tasks. The CEAT member(s) assigned to a particular audit will contact the project coordinator on-site and proceed with the schedule for conducting the on-site investigation audit. The audit is the evaluation of sample identification and control, chain-of-custody procedures, field documentation, security of evidence and sampling operations. The evaluation is based on the project plan and directions given by the CEAT leader and the Project Officer. Specifics regarding the audit in progress are contained in the Audit Plan.

The CEAT will maintain a record of all activities performed during the investigation audit including logbooks, work papers, and checklists. The checklists are included herein as Appendices A through D. The auditor must accurately track the dates and times of audit activities and the document numbers that have been reviewed. Included in the record will be the project codes, project location, identification of the investigators assigned to the project and auditor's name. The checklists must be completed in their entirety and any other pertinent information should be recorded in the "Comments" section.

Reporting

A follow-up written report gives details of the audit debriefing. The report lists findings and recommendations in accordance with lab, field, PRP, and/or document control guidance, NEIC Policy and Procedures, and established operating procedures. The report is submitted to NEIC within ten (10) working days of the completion of the audit. Reports will be transmitted by the NEIC Project Officer or Deputy to the requestor, EPA program official, and audited facility, when appropriate. Reports contain a statement signed by the CEAT team leader.

FIELD INVESTIGATIONS AUDIT

Field evidence audits provide for handling physical and documentary evidence obtained during field investigations, on-site inspections, or remedial actions. The audits include review of sample identity procedures and document control techniques. The audits typically focus on determining adherence by the site sampling/investigation team to sampling plans, Quality Assurance Project Plans, and NEIC's Evidence Audit Requirements and Policies and Procedures.

The field audit phases follow the general guidelines stated in the previous section. A Field Investigations Audit Checklist can be found in Appendix A. Field investigations also have some unique requirements.

Requirements Specific to Field Investigations

Pre-audit communication between the CEAT and the project coordinator is necessary to determine if any special safety considerations or entry problems exist. The CEAT member(s) arriving at the field investigation site should

follow entry procedures identical to those of the investigation team. If possible, the auditor should enter the site with the team. The CEAT should give the project coordinator ample time to arrange for their entry. If the auditor arrives at the investigation site unannounced, the facility should be entered in the following manner:

- 1. The plant premises should be entered through the main gate or through the entrance designated by the source, if in response to an inspection notification letter.
- 2. The CEAT member should introduce himself/herself in a dignified, courteous manner to a responsible plant official and briefly describe the purpose of the visit. Identification credentials should always be shown. A responsible plant official may be the owner, operator, officer, the plant environmental engineer, or agent-in-charge of the facility.
- 3. If a guard is present at the entrance, the CEAT member should present credentials and request that the guard call his/her superior on the phone. When the name is known, the member may request that the guard call the responsible official directly.
- 4. If the company provides a blank sign-in sheet, log, or visitors register, it is acceptable to sign it. CEAT members must adhere to the directives of the CEAT leader regarding signing a release of liability (waiver) when entering a facility under the authority of Federal law.

- 5. If entry is refused, the CEAT member should not contest the issue with the facility representative, but should immediately do the following:
 - a. Obtain name and title of the individual denying entry and record the date and time.
 - b. State that he/she is a member of a technical investigative team under contract to EPA, ask if he/she heard and understood the reason for the visit, record the answer and any reasons given for denial of entry.
 - c. Leave the premises and notify the appropriate CEAT leader who, in turn, must notify the Project Officer or DPO.

Sample Control

The evidence audit addresses handling of samples from time of collection through analysis until final disposition. A sample is physical evidence collected from a facility or from the environment. Evidence control is an essential part of all enforcement investigations. A sample must be identified as to the location, date, time, and name of person collecting it. A sample tag [Figure 11] is used for this purpose. All samples are also listed in a Chain-of-Custody Record [Figure 12].

Contractor Field Investigation Teams conducting investigations for the Hazardous Waste Site program use two additional forms for samples shipped to contractor laboratories. They are Organic Traffic Report [Figure 13] and Inorganic Traffic Report [Figure 14].

Figure 11 SAMPLE TAG

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

NATIONAL ENFORCEMENT INVESTIGATIONS CENTER Building 53, Box 25227, Denver Federal Center Denver, Colorado 80225



Project Cod	e Stati	on No.	1	Mon	th/D	ay/Y	ear			Tim	1¢				D	esigna	te:	
														Со	mp.		Grab	
N- 7566 Lab Sample No.	Remarks:	Bacteriology	Mut agenicity Pesticides	Volatile Organics	Priority Pollutants	Organics GC/MS	න් Oil and Grease	Cyanide	Metats	Mercury	Phenolics	COD, TOC. Nutrients	Solids (TSS)(TDS)(SS)	800 Anions		ANALYSES	Yes 🗆 No 🗆	Preservative:



Figure 12 CHAIN-OF-CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY Office of Enforcement

NATIONAL ENFORCEMENT INVESTIGATIONS CENTER Building 53, Box 25227, Denver Federal Center

CHAIN OF CUSTODY RECORD Denver, Colorado 80225 PROJ. NO. PROJECT NAME NO. SAMPLERS: (Signature) OF REMARKS CON-TAINERS GRAB COMP STA. NO. DATE TIME STATION LOCATION Date / Time Received by: (Signature) Relinquished by: (Signature) Date / Time Received by: (Signature) Relinquished by: (Signature) Date / Time Received by: (Signature) Relinquished by: (Signature) Date / Time Received by: (Signature) Relinquished by: (Signature) Date / Time Received for Laboratory by: Date / Time Remarks Relinquished by: (Signature) (Signature) Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

STATES STATES

U.S. ENVIRONMENTAL PROTE. TION AGENCY HWI Sample Management Office P.O. Brix 818, Alexans tria, Virginia 22313 4783 557-2493 557-2493

Sample Number R 4576

DRGANICS TRAFFIC REPORT

① Case Number:	. •	ONCENTRATION (Control of the Control	4 Ship To:		
Sample Site Name/Code:	Low Concentration Medium Concentration				
	③ SAMPLE M (Check C			Attn: Transfer Ship To:	
Regional Office:	6 For each same	-	-	·	
Sampling Personnel:	of containers on each bottle	used and mark v	_R 4576	- Water (Extractable)	
(Name)		Number of Containers	Approx Total Ve	_R 4576	- Water (Extractable)
(Phone) Sampling Date:	Water (Extractable)			_R 4576	- Water
(Begin) (End)	Water (VOA)				(Extractable)
7 Shipping Information	Soil/Sediment			_R 4576	- Water (Extractable)
	Water (Ext/VOA)			R 4576	- Water (VOA)
Name of Camer	Other			R 4576	- Water (VOA)
Date Shipped:				R 4576	- Soil/Sediment (Ext & VOA)
				R 4576	- Soil/Sediment (Ext & VOA)
Airbill Number:				R 4576	- Water
8 Sample Description			9 Sam		(Ext & VOA)
Surface Water		R 4576	Water (Ext & VOA)		
Ground Water Solids					
Leachate Other (specify)					
(10) Special Handling Instant		 			

(e.g., safety precautions, hazardous nature)

CANADA SANTE CONTRACTOR OF THE PROPERTY OF THE

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office

Sample Number MC 4101

INORGANICS TRAFFIC REPORT

Case Number:Sample Site Name/Code:	(Check One) —— Low Concentration —— Medium Concentration (S SAMPLE MATRIX (Check One) —— Water —— Soil/Sediment	Attn: Transfer Ship To:
Sampling Office:	6 Shipping Information:	1
Sampling Personnel:	Name Of Carrier:	
(Name)		MC 4101 - Task 1 & 2
(Phone) Sampling Date:	Date Shipped:	1
(Begin)(End)	Airbill Number:	MC 4101 - Task 1 & 2
Sample Description:		MC 4101 · Task 3
(Check One)	Mark Volume Level On Sample Bottle	
Surface Water Ground Water	Check Analysis required	MC 4101 Task 3
Leachate	Task 1 & 2 Task 3 Ammonia	
Mixed Media Solids	Sulfide	MC 4101 - Task 3
Other (specify)	Cyanide	MC 4101 · Lust o
MATCHES ORGANIC SAMPLE NO.	_}	MC 4101 - Task 3
	SMO COPY	- NIC TIUI · I ask 3
		MC 4101 - Task 3

Data from on-site measurements are recorded directly into a field logbook or Field Data Record (FDR).

Sample Tag

Samples are removed from the sample location and transferred to a laboratory or other location for analysis. Before removal, however, a sample is often separated into portions depending on the analysis to be performed. Each portion is preserved in accordance with prescribed procedures and the sample is identified with a sample tag. The information recorded on the sample tag includes:

Project Code	An assigned number
--------------	--------------------

Station Number A two-digit number assigned by the Project

Leader and listed in the project plan

Date A six-digit number indicating the year, month

and day of collection

Time A four-digit number indicating the time of

collection - for example: 0954

Station Location The sampling station description, as specified

in the project plan

Samplers Each sampler's name is listed

Tag Number A unique serial number is stamped on each

tag

Remarks The samplers record pertinent observations

The sample tag contains an appropriate place for designating the sample as a grab or composite and identifying the type of sample collected for analysis. The sample tags are securely attached to each sample.

After collection, separation, identification and preservation, the sample is maintained under chain-of-custody procedures discussed later. If the composite or grab sample is to be split, it is aliquoted into similar sample containers. Identical information is recorded on the tag of each split. This identifies the split sample for the appropriate government agency, facility, laboratory, or company. In a similar fashion, all tags on blank or duplicate samples are marked "Blank" or "Duplicate," respectively, unless otherwise directed.

The CEAT examines a selected number of sample tags for completeness and accuracy. The team member determines if the station number and location are identified; the date and time collected are indicated; the type of sample and analysis are specified; the preservative, if used, is identified; and the sampler(s) signature(s) appear on the tag. The auditor also determines if the station location accurately identifies where the sample was taken and if the sampling methods used were as specified in the project plan or directed by the project coordinator.

Chain-of-Custody Record

Possession of samples collected during enforcement investigations must be traceable from the time collected until introduced as evidence in legal proceedings. Chain-of-Custody Records are used for this purpose.

A sample is in your custody if the following criteria are met:

- 1. It is in your possession.
- 2. It is in your view, after being in your possession.
- 3. It was in your possession and then locked up to prevent tampering.
- 4. It was in your possession and then transferred to a designated secure area.

Custody Procedures

- 1. In collecting samples for evidence, only the number that provides a good representation of the media being sampled are to be collected. To the extent possible, the quantity and types of samples and sample locations are determined prior to the actual field work. As few people as possible should handle samples.
- 2. The team member actually accomplishing the sampling is personally responsible for the care and custody of the samples collected until they are transferred or dispatched properly.
- 3. Sample tags must be completed for each sample, using waterproof ink unless prohibited by weather conditions. For example, a logbook notation would explain that a pencil was used to fill out the sample tag because a ballpoint pen would not function in freezing weather.
- 4. The project coordinator must review all field activities to determine whether proper custody procedures were followed during the field work and decide if additional samples are required.

To maintain and document sample possession, chain-of-custody procedures are followed.

Transfer of Custody and Shipment

- 1. Samples are accompanied by a Chain-of-Custody Record [Figure 12]. When transferring the possession of samples, the individuals relinquishing and receiving will sign, date, and note the time on the record. This record documents sample custody transfer from the sampler, often through another person, to the analyst.
- 2. Properly packaged samples are dispatched to the appropriate laboratory for analysis, with a separate custody record accompanying each shipment. Shipping containers are locked or secured with evidence tape for shipment to the laboratory. The method of shipment, courier name(s), and other pertinent information is entered in the "Remarks" section.
- 3. Whenever samples are split with a source or government agency, a separate Chain-of-Custody Record or Sample Receipt is prepared for those samples and marked to indicate with whom the samples are being split. The sample tag serial numbers from all splits are recorded on the custody record. The person relinquishing the samples to the facility or agency should request the signature of a representative acknowledging receipt of the samples. If a representative is unavailable or refuses to sign, this is noted in the "received by" space. When appropriate, as in the case where the representative is unavailable, the custody

record should contain a statement that the samples were delivered to the designated location and the date and time noted.

- 4. All shipments will be accompanied by the Chain-of-Custody Record identifying its contents. The original record will accompany the shipment, and a copy is retained by the project coordinator.
- 5. If sent by mail, the package will be registered with return receipt requested. Freight bills, post office receipts, and bills of lading are retained as part of the permanent documentation.

The CEAT selects a predetermined number of Chain-of-Custody Records to be audited in the field. The records must be reviewed to determine if the station number and description corresponds to the sample tag, if the date and time correspond, if the parameters to be analyzed have been properly identified, and if all custody transfers have been documented and the date and time of transfer recorded.

The audit team also determines if samples are kept in custody at all times and are handled to prevent tampering. Sampling equipment should also be checked for security and to detect tampering.

Sample Management Office Forms

A contract Sample Management Office (SMO) manages the shipment of samples from hazardous waste site investigations and allocates workloads to participating contractor laboratories. The Organic and Inorganic Traffic Reports [Figures 13 and 14] are to be executed by Field Investigation Teams and are subject to audit as are the previously discussed documents. This

portion of the audit is to ensure that the information recorded on the forms is correct and that it coincides with the information on the sample tags and on the Chain-of-Custody Record.

Field Documentation

Observation and measurements during field investigations must be documented in bound logbooks or Field Data Records. These records are intended to provide sufficient data and observations to enable participants to reconstruct events that occurred during the project and to refresh the memory of the investigators if called upon to give testimony during legal proceedings.

Logbooks: Project logbooks are reviewed by the CEAT during the field investigation audit to see that each is signed and all entries are dated. Logbook entries must be legible, written in ink, and contain accurate and inclusive documentation of an individual's project activities. Because the logbook forms the basis for reports written later, it must contain only facts and observations. Language should be objective, factual and free of personal feelings or other terminology which might prove inappropriate. All pertinent information should be recorded in these logbooks from the time each individual is assigned to the project until the project is completed. Entries made by individuals other than the person to whom the log book was assigned must be dated and signed by the individual making the entry.

Field Data Records: Where appropriate, Field Data Records (in the form of individual sheets or bound logbooks) are maintained for each survey sampling station or location. *In-situ* measurements and field observations are recorded in the FDRs with all pertinent information necessary to explain and reconstruct sampling operations. Each page

of a Field Data Record is dated and signed by all individuals making entries on that page. The coordinator and the field team on duty are responsible for ensuring that FDRs are present during all monitoring activities and are stored safely to avoid possible tampering.

The CEAT reviews Field Data Records in the same manner as the logbooks.

Photographs: Photographs may be taken for evidentiary purposes and must also be controlled. The CEAT reviews field logbooks to determine if the photographs are properly documented. When movies, slides, or photographs are taken which visually show sampling sites or provide other documentation, they are numbered to correspond to the logbook entries. The name of the photographer, date, time, site location, and site description are entered sequentially in the logbook as photos are taken. Chain-of-custody procedures depend upon the type of film and the processing it requires.

<u>Corrections to Documentation</u>: As previously noted, unless prohibited by weather conditions, all original data recorded in logbooks, FDRs, sample tags, custody records, and other data sheet entries are written with waterproof ink. None of the documents listed above are to be destroyed or thrown away, even if they are illegible or contain inaccuracies which require a replacement document.

If an error is made on a document, the individual may make corrections simply by drawing a line through the error and entering the correct information. The erroneous information should not be obliterated.

Sampling Operations

The CEAT reviews sampling operations to determine if they are performed as stated in the project plan or as directed by the project coordinator. The proper number of samples should be collected at the assigned locations. The CEAT checks to determine that the samples are in prescribed containers and are preserved in accordance with standard operating procedures. The CEAT determines if the required field measurements and quality assurance checks are performed and documented, as directed.

A closing briefing shall be held with the field team leader to verbally review CEAT observations. Written comments shall not be provided at this time. Unresolved problems will be discussed with the NEIC Project Officer and then with the requestor.

LABORATORY OPERATIONS AUDIT

The CEAT performs audits as requested at laboratories supporting enforcement investigations. Evidence audits may be conducted for EPA, state, or contractor laboratories. The audit addresses sample control, laboratory documentation procedures, security of evidence and document control. Completed case files are also reviewed for completeness, integrity, and adherence to evidentiary requirements. The evaluation is based on project plans, laboratory standard operating procedures, or contract requirements.

Laboratory Audit phases follow the general guidelines stated in the Audit Planning Section. A Laboratory Operations Audit Checklist can be found in Appendix B. In addition, there are requirements specific to the Laboratory Operations Audit.

Requirements Specific to Laboratory Audits

Sample Control

The CEAT verifies the following laboratory custody procedures:

- 1. A designated sample custodian accepts custody of the shipped samples and verifies that the information on the sample tags matches that on the Chain-of-Custody Records. Pertinent information as to shipment, pick up, courier, etc. is entered in the "Remarks" section. The custodian then enters the sample tag data into a bound logbook. The samples are then stored in a secure area. The auditor will determine if the laboratory follows protocols established by EPA for sample storage and preservation.
- 2. The custodian distributes samples to the appropriate analysts. The names of individuals who receive samples are recorded in internal laboratory records. Laboratory personnel are responsible for the care and custody of samples from the time they are received until they are exhausted or returned to the custodian.
- 3. When sample analysis and necessary quality assurance checks have been completed, the unused portion of the sample must be disposed of properly and according to a schedule established by the project coordinator, project officer, or case attorney. All identifying tags, data sheets, and laboratory records shall be retained as part of the permanent documentation.

Laboratory Documentation

All sample data, laboratory observations, and calculations are recorded in logbooks or on bench sheets. All documentation is accountable once project information is recorded. Each document shows the project code, dates, name(s) of analyst(s), and other pertinent information concerning the identification of the sample or laboratory results. Instrument printouts, graphs, and other documents are labeled in a similar manner. All other documentation concerning the project such as correspondence, report notes, methods, documents, references, sample inventories, checkout logs, etc. becomes part of the permanent record.

Logbooks need to contain information sufficient to recall and describe succinctly each step of the analysis performed because it may be necessary for the analyst to testify in subsequent enforcement proceedings. Moreover, sufficient detail is necessary to enable others to reconstruct the procedures followed, should the original analyst be unavailable for testimony. Any irregularities observed during the analytical process need to be noted. If, in the technical judgment of the analyst, it is necessary to deviate from a particular analytical method, the deviation shall be justified and the rationale shall be fully documented.

The auditor reviews selected examples from each document type to determine if they are being handled in an approved manner. Recording shall be done in ink and all corrections to documentation shall be done in the manner previously described.

Evidence Security

The CEAT reviews laboratory procedures to verify that samples are in custody or secured from tampering during receipt, storage, and analysis. Tracking forms, bench sheets, or logbooks are used to trace sample possession and document names of personnel handling samples.

Document Control

The CEAT reviews laboratory procedures for assembly and organization of all documents pertaining to a particular case. Laboratory procedures must ensure that all case-related documents are filed at the conclusion of analysis. These records include, but are not limited to:

- Chain-of-Custody records
- Sample tags
- Traffic report forms
- Sample log-in records
- Sample tracking forms
- Analyst logbook pages
- Instrument printouts
- Instrument logbook pages
- Correspondence
- QA/QC records
- Bench records
- Final report

The CEAT audits completed laboratory files and records for samples in progress to determine adherence to laboratory procedures. Observations of the auditor(s) are recorded in logbooks or on checklists [Appendix B].

CEAT ROLE IN LABORATORY AUDITS FOR THE NATIONAL CONTRACT LABORATORY PROGRAM

The CEAT is assigned by the NEIC Project Officer to conduct quarterly on-site evidence audits in support of the National Contract Laboratory Program (CLP). This program is managed by the Office of Emergency and Remedial Response Support Services Branch and was created to provide analytical support for hazardous waste site investigations.

The work effort is to provide the CLP Program Manager with observations of contract laboratory evidence handling procedures. Requirements are established for sample receipt, log-in, storage, tracking, data recording, data reporting, and document filing. These requirements are stated in the contract as "Specifications for Chain-of-Custody and Document Control Procedures." The CEAT reports any deviations from these policies and procedures to the NEIC Project Officer who notifies the CLP Program Manager that corrections or improvements are needed.

The CEAT auditors form a team with representatives from the EPA Environmental Monitoring Systems Laboratory - Las Vegas (EMSL-LV) to conduct the on-site inspections. EMSL-LV has a support role to the CLP for monitoring contract laboratory quality assurance requirements. They also provide guidance for correction of laboratory technical problems. Close communication between NEIC, EMSL-LV, and the CEAT is necessary to coordinate these audits.

Audit phases consist of:

- Laboratory notification
- Work assignment (see Audit Planning)

- Audit preparation (see Audit Planning)
- On-site inspection (also see Audit Planning)
- Reporting
- Followup

Requirements Specific to the CLP Lab Audit

Laboratory Notification

EMSL-LV has the responsibility prepare a quarterly audit schedule and notify the laboratories. NEIC and CEAT are advised as the inspections are confirmed. Each laboratory director is informed of the date of audit, names of the team members, and topics covered. Copies of the notification letter are provided to NEIC.

On-site Inspection

CEAT and EMSL-LV representatives meet prior to visiting the laboratory to discuss any special problems to be addressed and for an update on any changes since the last audit.

EMSL-LV designates a team leader who introduces the auditors and begins a pre-inspection briefing with the laboratory director. CEAT members participate in this briefing to identify evidence audit activities to be addressed.

Following the briefing, a tour of the laboratory facility is made and CEAT auditors make notes and fill out checklists. The procedures require the auditor(s) to observe and record how the laboratory handles sample receipt, log-in, storage, sample tracking, data recording, data reporting and document filing. Specific laboratory documents are reviewed to assure proper

identification and recordkeeping practices are followed. An exit briefing is held to present findings and make recommendations to the laboratory director.

Followup

Deficiencies reported for an audit are addressed in the next quarterly audit. If improvements have not been made, CEAT notifies the NEIC Project Officer who, in turn, informs the CLP Manager.

The CEAT also supports the National Contract Laboratory Program (CLP) by providing evidence audits of completed laboratory case files. The audit is a review of records to determine if established policies and procedures for document control and custody have been followed. In coordination with the CLP Program Manager and the Sample Management Office (SMO), NEIC has established a system for routing contract laboratory case files to the CEAT for audit and then to Regional offices. Audit phases are:

- Work assignment
- Receipt of records
- Evidence audit
- Transmittal of records
- Reporting

Work Assignment

This work effort is a continuing activity assigned by the Project Officer. Individual case file assignments are not made unless there is a priority request from a Regional office.

Receipt of Records

Contract laboratories submit completed case files to the CEAT on a routine basis. Transfer of records is accomplished at the same time as sample disposal (approximately 60 days after analysis). The records are inventoried and numbered prior to shipment. The CEAT inspects and logs in all shipments.

Evidence Audit

Evidence audits are conducted on all records received. Audit standards are based on laboratory contract requirements and established EPA procedures for evidence handling. A two-level audit system is in effect. All files are checked for completeness and selected cases include development of sample profiles. Sample profiles are graphic representations of sample history from the time of collection through analysis and reporting of data. The large volume of records generated by contract laboratories requires that the CEAT audit a percentage of the total. Selection of cases is on a random basis; however, NEIC accepts requests from Regional offices for audits of priority cases.

Transmittal of Records

The CEAT transfers case files within 10 days to Regional offices upon completion of the audit. Regional contacts for the documents are identified by the Sample Management Office. Sample profiles and cover letters accompany the transfer. Audit findings requiring clarification or special attention by the Region will be transmitted by NEIC.

Reporting

The CEAT provides a monthly summary of cases audited and copies of transmittal cover letters to the Project Officer.

DOCUMENT CONTROL AUDIT

A document control audit is conducted once field and laboratory records have been completed, assembled, organized, and stored. The audit consists of a review of the case file to ensure completeness and consistency. Document Control Audit phases follow the general guidelines stated in the Audit Planning Section. A Document Control Audit Checklist can be found in Appendix C. In addition, Document Control Audits have some specific requirements.

Requirements Specific to the Document Control Audit

The CEAT reviews the assembled file and record observations regarding (1) file organization and format, (2) document accountability, and (3) separation and control of confidential business information. Investigation teams and laboratories must establish orderly filing and inventory systems. Following is a description of case file preparation procedures followed by NEIC. This system serves as guidance for conducting document control audits by the CEAT.

File Organization and Format

The file is assembled in the following order:

- a. Project plan
- b. Project logbooks
- c. Field data records
- d. Sample identification documents
- e. Chain-of-Custody records
- f. Analytical logbooks, lab data, calculations, bench sheets, graphs, etc.
- g. Correspondence
 - 1. Interoffice
 - 2. EPA
 - 3. Industry
 - 4. Record of confidential material
- h. Report notes, calculations, etc.
- i. Reference literature
- j. Sample (on hand) inventory
- k. Check-out logs
 - 1. Litigation documents
- m. Miscellaneous photos, maps, drawings, etc.
- n. Final report

No confidential material is included in this file. Draft reports are disposed of and only the final report appears in the file. Confidential material must be maintained in a separate file under custody of a Document Control

Officer. Confidential material is checked out from the DCO on a need-to-know basis.

A central element of the document control audit, to be performed by the CEAT, is a determination that filing systems ensure document accountability and file security.

Document Accountability

To provide accountability, each document features a unique serialized number which is assigned when the file is assembled. This number consists of a three-digit project code, the Branch initials, and a three-digit document number. For example, the first item in the Chemistry Branch file for project 123 would have the number 123-CB-001.

The inventory list consists of the serialized document number and a brief description of the item. Examples are:

123-CB-001 5/15/76 Memo from Mary Smith to John Doe re Toxicity and Health Effects Data

123-CB-002 Computer Printouts, Blank #2, Air GC/MS, 2 pages

123-CB-003 6/1/76 Handwritten notes of John Doe, 3 pages

The document control audit specifically consists of checking each document submitted for accountability. A written explanation is prepared for any documents unaccounted for. Documents are reviewed to ensure that they all appear on an inventory and that all documents listed on the inventory are accounted for. The auditor checks the documents for the proper numbering

system. Documents are examined to determine that all necessary signatures, dates and project codes are included.

Control of Confidential Business Information

The CEAT examines any documents marked "confidential" and determines if they are handled and stored in the proper manner. Any information received with a request of confidentiality is handled as "confidential." When confidential material is received, it is marked as such and placed in a locked filing cabinet or safe. Only authorized personnel are allowed access to the file.

Reproduction should be kept to an absolute minimum. If it is essential that a copy be made, the person who maintains control of the file will make the copy. No confidential information may be entered into a computer or data handling system without proper safeguards. Requests for access to confidential information by any member of the public or a state, local, or federal agency shall be handled according to the procedures contained in the Freedom of Information Act regulations (40 CFR 2). All requests for enforcement records are directed to the case attorney.

Toxic Substances Control Act Confidential Business Information

In 1976, Congress enacted PL 94-469, the Toxic Substances Control Act (TSCA). This act gives the U.S. Environmental Protection Agency a mandate to protect public health and the environment from unreasonable chemical risks.

Several product categories which fall under the jurisdiction of other federal laws have been exempted from this law. These categories are: pesticides, tobacco, nuclear material, food, food additives, drugs, cosmetics, and firearms and ammunition.

During the course of an evidence audit, the CEAT may encounter documents which a company has declared confidential under the Toxic Substances Control Act. If such claim has been made, the project coordinator should advise the CEAT during the preaudit discussions. CEAT members are not cleared for TSCA CBI and will not work with this material.

A company may claim confidentiality for any or all information collected by EPA during an inspection if it meets all of the following criteria:

- 1. The company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
- 2. The information is not, and has not been, reasonably obtainable without the company's consent by other persons (other than government bodies) by use of legitimate means (other than Discovery based on a showing of special need in a judicial or quasi-judicial proceeding).
- 3. The information is not publicly available elsewhere.
- 4. Disclosure of the information would cause substantial harm to the company's competitive position.

Once confidentiality has been claimed, there are stringent procedures that must be followed. Each person who will have access to TSCA Confidential Business Information must have special clearance. Procedures for obtaining

clearance and how to handle the information received are outlined in the TSCA Confidential Business Information Security Manual.

Some examples of the requirements for handling TSCA Confidential Business Information are listed below.

You are responsible for the control and security of all TSCA Confidential Business Information you receive. Specifically, you shall:

- 1. Discuss TSCA Confidential Business Information only with authorized persons
- 2. Safeguard the information when actually in use by:
 - a. Keeping it under constant surveillance and being in a position to exercise direct physical control over it
 - b. Covering it, turning it face down, placing it in approved storage containers, or otherwise protecting it when unauthorized persons are present
 - c. Returning it to approved storage containers when not in use and at close of business
- 3. Not reproduce TSCA Confidential Business Information documents. Copies must be obtained through a Document Control Officer (DCO)
- 4. Not destroy TSCA Confidential Business Information documents except upon approval by and under the supervision of a DCO

5. Not discuss TSCA Confidential Business Information over the telephone

The penalties for violating the required procedures are severe. A "violation" is the failure to comply with any provision in the TSCA Confidential Business Information Security Manual, whether or not such failure leads to actual unauthorized disclosure of TSCA Confidential Business Information.

Violators of the procedures outlined in the manual may be removed from the authorized access list and be subject to disciplinary action with penalties up to and including dismissal.

Willful unauthorized disclosure of TSCA Confidential Business Information may subject the discloser to a fine of not more than \$5,000 or imprisonment for not more than one (1) year or both.

The foregoing is a brief summary of the requirements imposed for handling TSCA Confidential Business Information. It is essential that personnel be familiar with these requirements. TSCA confidential files are subject to inspections by personnel from the EPA Security and Inspection Division, as well as personnel from the Office of the Inspector General, to ascertain that all procedures are being followed.

Personnel should not accept or assume custody of material or data declared "TSCA Confidential" unless (a) the matter has been thoroughly discussed with the Document Control Officer, (b) the recipient(s) have been cleared for "TSCA Confidential" by the EPA Regional Administrator, and (c) approved procedures for handling the data have been implemented.

POTENTIAL RESPONSIBLE PARTY SEARCH AUDIT

PRP searches, the identification of companies or individuals linked with a hazardous waste site, related to Superfund Sites are routinely conducted for the Agency through one of several Technical Enforcement Support (TES) Contracts. One of the services offered through the CEAT contract is audits of these PRP Searches for completeness, integrity, quality assurance, and adequate review, adequate supporting documentation, and compliance with written PRP search procedures, Work Plans, and Work Assignment requirements.

PRP Search audits are conducted in support of the Technical Enforcement Support Contracts to ensure that the PRP Searches conducted meet agency requirements. These audits are useful for monitoring contractor performance and adherence to specified PRP search procedures. PRP search audits are particularly useful at the initial stages of case preparation prior to referral to ensure that the PRP report is complete, consistent, adequately documented, and contains the required information. PRP search audits are based on guidance published in the manual "Potentially Responsible Party Search Manual" (Draft), dated January 1987.

Potential Responsible Party Search Audit phases follow the general guidelines stated in the Audit Planning Section. A Potential Responsible Party Search Audit Checklist can be found in Appendix D. In addition, Potential Responsible Party Search Audits have some specific requirements.

Requirements Specific to the PRP Search Audit

The audit is the evaluation of all project file and reference documentation presented to back-up prepared PRP Search lists. The manual

"Potentially Responsible Party Search Manual" (Draft), dated January 1987, provides the guidance against which the CEAT assesses procedural and evidentiary compliance with EPA standards. The evaluation is based on the project plan and directions given by the CEAT leader and the Project Officer. Specifics regarding the audit in progress are contained in the Audit Plan.

The CEAT will maintain a record of all activities performed during the PRP Search audit including logbooks, work papers, and checklists. The checklists are included herein as Appendix D. The auditor must accurately track the dates and times of audit activities and the document numbers that have been reviewed. Included in the record will be the project codes, project location, identification of the investigators assigned to the project, and auditor's name. The checklists must be completed in their entirety and any other pertinent information should be recorded in the "Comments" section.

APPENDICES

	A	Field	Investigations	Audit	Checklist
--	---	-------	----------------	-------	-----------

- B Laboratory Operations Audit Checklist
- C Document Control Cudit Checklist
- D PRP Search audit checklist
- E Sample Narrative Evidence Audit Report

APPENDIX A FIELD INVESTIGATIONS AUDIT CHECKLIST

Appendix A FIELD CHECKLIST Briefing with Project Coordinator

SIGNATURE OF AUDITOR	DATE OF AUDIT
PROJECT COORDINATOR	PROJECT NO
TYPE OF INVESTIGATION (authority, agency)	
	Was a project plan prepared? If yes, what items are addressed in the plan?
	Were additional instructions given to project participants (i.e., changes in project plan)? If yes, describe these changes.
	Is there a written list of sampling locations and descriptions? If yes, describe where documents are.
	Is there a map of sampling locations? If yes, where is the map?
	Do the investigators follow a system of accountable documents? If yes, what documents are accountable?

Yes	No	N/A	6.	Is there a list of accountable field documents checked out to the project coordinator? If yes, who checked them out and where is this documented?
Yes	No	N/A	7.	Is the transfer of field documents (sample tags, chain-of-custody records, logbooks, etc.) from the project coordinator to the field participants documented? If yes, where is the transfer documented?

FIELD CHECKLIST Field Observations

Yes	No	N/A	1.	Was permission granted to enter and inspect the facility? (Required if RCRA inspection.)
Yes	No	N/A	2.	Is permission to enter the facility documented? If yes, where is it documented?
Yes	No	N/A	3.	Were split samples offered to the facility? If yes, was the offer accepted or declined?
Yes	No	N/A	4.	Is the offering of split samples recorded? If yes, where is it recorded?
Yes	No	N/A	5.	If the offer to split samples was accepted, were the split samples collected? If yes, how were they identified?
Yes	No	N/A	6.	Are the number, frequency, and types of field measurements and observations taken, as specified in the project plan or as directed by the project coordinator? If yes, where are they recorded?

Yes	No	N/A	7.	Are samples collected in the types of containers specified for each type of analysis? If no, what kind of sample containers were used?
Yes	No	N/A	8.	Are samples preserved, as required? If no or N/A, explain.
Yes	No	N/A	9.	Are the number, frequency, and types of samples collected, as specified in the project plan or as directed by the project coordinator? If no, explain why not.
Yes	No	N/A	10.	Are samples packed for preservation when required (i.e., packed in ice, etc.)? If no or N/A, explain why.
Yes	No	N/A	11.	Is sample custody maintained at all times? How?

FIELD CHECKLIST Document Control

Yes	No	N/A	1.	Have all unused and voided accountable documents been returned to the coordinator by the team members?
Yes	No	N/A	2.	Were any accountable documents lost or destroyed? If yes, have document numbers of all lost or destroyed accountable documents been recorded and where are they recorded?
Yes	No	N/A	3.	Are all samples identified with sample tags? If no, how are samples identified?
Yes	No	N/A	4.	Are all sample tags completed (e.g., station number location, date, time analyses, signatures of samplers, type, preservatives, etc.)? If yes, describe types of information recorded.
Yes	No	N/A	5.	Are all samples collected listed on a Chain-of-Custody Record? If yes, describe the type of chain-of-custody record used and what information is recorded.

Yes	No	N/A	6.	If used, are the sample tag numbers recorded on the chain-of-custody documents?
Yes	No	N/A	7.	Does information on sample tags and Chain-of-Custody records match?
Yes	No	N/A	8.	Does the Chain-of-Custody Record indicate the method of sample shipment?
Yes	No	N/A	9.	Is the Chain-of-Custody Record included with the samples in the shipping containers?
Yes	No	N/A	10.	If used, do the sample traffic reports agree with the sample tags?
Yes	No	N/A	11.	If required, has a receipt for samples been provided to the facility (required by RCRA)? Describe where offer of a receipt is documented.
Yes	No	N/A	12.	If used, are blank samples identified?

Yes _	No N/A	13.	If collected, are duplicate samples identified on sample tags and Chain-of-Custody Records?
Yes	_ No N/A	14.	If used, are spiked samples identified?
Yes	_ No N/A .	15.	Are logbooks signed by the individual who checked out the logbook from the project coordinator?
Yes	_ No N/A .	16.	Are logbooks dated upon receipt from the project coordinator?
Yes	_ No N/A .	17.	Are logbooks project-specific (by logbook or by page)?
Yes	_ No N/A .	18.	Are logbook entries dated and identified by author?
Yes	_ No N/A _	19.	Is the facility's approval or disapproval to take photographs noted in a logbook?

Yes	No	N/A	20.	Are photographs documented in logbooks (e.g., time, date, description of subject, photographer, etc.)?
Yes	No	N/A	21.	If film from a self-developing camera is used, are photos matched with logbook documentation?
Yes	No	N/A	22.	Are sample tag numbers recorded? If yes, describe where they are recorded.
Yes	No	N/A	23.	Are calibration of pH meters, conductivity meters, etc., documented? If yes, describe where they are documented.
Yes	No	N/A	24.	Are amendments to the project plan documented? If yes, describe where the amendments are documented.

FIELD CHECKLIST Debriefing with Project Coordinator

Yes No N/A	1.	Was a debriefing held with project coordinator and/or other participants?
Yes No N/A	2.	Were any recommendations made to the project participants during the debriefing? If yes, list recommendations.

APPENDIX B LABORATORY OPERATIONS AUDIT CHECKLIST

Appendix B

LABORATORY OPERATIONS AUDIT CHECKLIST

N	ATURE OF AUDITOR	DATE OF AUDIT
BO	RATORY	CEAT PROJECT #
	RATORY LOCATION	
	RACTS IN EFFECT	
st (Contract Numbers)	
	Name of Sample Custodian an receipt and document control.	d other personnel responsible for sample
	Where are the Sample Cust documented?	odian's procedures and responsibilities
		perating Procedures (SOPs) pertaining to (laboratory manual, written instructions,
	Where is the receipt of Chain-documented?	of Custody Record(s) with samples being
		entation to assure that the nonreceipt of a samples is being documented.
		shipping container(s) being documented her locked or sealed properly, etc.]?

in of	eview the sample receipt documentation to assure that the lack of tegrity of the shipping container(s) is being documented (i.e., evidence tampering, custody seals broken or damaged, locks unlocked or issing, etc.).
S(Cl	etermine, by asking the Sample Custodian or reviewing the laboratory DP manual, if agreement among Sample Management Office forms, nain-of-Custody records, and sample tags is being verified? State urce of information.
	here is the agreement or nonagreement verification being cumented?
	eview sample receipt documentation to assure that sample tag ambers are recorded by the Sample Custodian.
sa	here are written Standard Operating Procedures (SOPs) pertaining to mple storage documented (laboratory manual, written instructions, c.)?
	o written SOPs and actual laboratory practices demonstrate laboratory curity?
	escribe sample storage area (upright refrigerator in GC lab, walk-in oler in sample receiving area, etc.).

How is sample identification maintained?
How is sample extract (or inorganics concentrate) identification maintained?
How are written Standard Operating Procedures (SOPs) pertaining to sample handling and tracking documented?
How are written Standard Operating Procedures (SOPs) pertaining to sample handling and tracking documented?
What laboratory records are used to record personnel receiving and transferring samples in the laboratory?
Affirm that each instrument used for sample analysis (GC, GC/MS, AA, etc.) has an instrument log. List those instruments that do not.
Determine where analytical methods are documented and ask if methods are available to the analysts.
Determine where quality assurance procedures are documented and ask if procedures are available to the analysts.

22.	How are written Standard Operating Procedures (SOPs) for compiling and maintaining sample document files documented?
23.	How are sample documents filed (by case number, internal laboratory number, batch number, sample number, etc.)?
24.	Review sample document files to determine if a document file inventory is prepared for each case file.
25.	Review sample document files to determine if all documents in the case files are consecutively numbered according to the file inventories.
26.	Observe the document file storage area to determine if the laboratory document files are stored in a secure area.
27.	Has the laboratory received any confidential documents?
Con	aplete 28, 29 and 30 ONLY if the response to question 27 was yes.
28.	Review the case files to assure that confidential documents are segregated from other laboratory documents.
29.	Review the case files to assure confidential documents are stored in a secure manner.
30.	Review recommendations from the previous audit to determine if the recommendations have been implemented. If not, the recommendations should be repeated and the laboratory director and the Project Officer should be notified

LABORATORY CHECKLIST Debriefing with Laboratory Personnel

	ist observations made by the auditor.
_	
_	
_	
_	
_	
N	Make recommendations with respect to each observation.
_	
_	· · · · · · · · · · · · · · · · · · ·
_	
_	
_	
-	
Γ	Discuss observations and recommendations made by the auditor
_	
_	
_	
_	

APPENDIX C DOCUMENT CONTROL AUDIT CHECKLIST

Appendix C

DOCUMENT CONTROL AUDIT CHECKLIST

PROJEC	T NO		DATE OF AUDIT		
PROJEC	T LOCAT	ON_	SIGNATURE OF AUDITOR		
			· 		
Yes	No	1.	Have individual files been assembled (field investigation, laboratory, other)? Comments:		
Yes	No	2.	Is each file inventoried?		
			Comments:		
Yes	No	3.	Is there a list of accountable documents?		
			Comments:		
Yes	No	4.	Are all accountable documents present or accounted for?		
			Comments:		
V _{os}	No	5	Is a document numbering system used?		
165	110	J.	Comments:		
Yes	No	6	Has each document been assigned a document control number?		
			Comments:		

Yes	No	7.	Are all documents listed on the inventory accounted for?
			Comments:
Yes	No	8.	Are there any documents in the file which are not on the inventory?
			Comments:
Yes	No	9.	Is the file stored in a secure area?
			Comments:
Yes	No	10.	Are there any project documents which have been declared confidential?
			Comments:
Yes	No	11.	Are confidential documents stored in a secure area separate from other project documents?
			Comments:
Yes	No	12.	Is access to confidential files restricted?
			Comments:
Yes	No	13.	Have confidential documents been marked or stamped "Confidential"?
			Comments:

Yes	No	14.	Is confidential information inventoried?
			Comments:
Yes	No	15.	Is confidential information numbered for document control?
			Comments:
Yes	No	16.	Have any documents been claimed confidential under TSCA?
			Comments:

$\begin{array}{c} \text{APPENDIX D} \\ \\ \text{PRP SEARCH AUDIT CHECKLIST} \end{array}$

CEAT Audit Checklist Page D-1 of 17 Revision No. 8 Revision Date: 01/00/89

PRP AUDIT CHECKLIST

Project Name:	W.A. Number:	
Site I.D. Number:	TES Contract Number:	
Site Proposed for NPL (Date):		
Site Listed on NPL (Date):		
Type of Audit:		
Contractor Name:		
PRP Program Manager (Contractor):		
PRP Project Manager (Contractor):		
PRP Project Leader (Contractor):		
Audit Team:	·	
Date(s) of Audit:		
CAT Project Number:		
CAT Contract Number:		·
Date	Signature of Audit Team Leader	

A.	PRP P	rogram	/Project Man	ager Inter	rview (P	re-Audit	Briefing)	
	1.	Has tl	ne auditor dis	scussed th	ie reasor	ns for the	e audit?	
			Yes	No		_ Not A	pplicable	
	2.	Has th		roject Ma	nager be	een mad	e aware of how the	e audit will be
			Yes	No	, 	_ Not A	pplicable	
	3.	Has th	ne Program/P	roject Ma	nager b	een mad	e aware of:	
		(a)	How the re	sults of th	ne audit	will be c	ommunicated?	
			Yes		_ No		_ Not Applicable	
		(b)	How the re-	cords of tl	he audit	will be	maintained?	
			Yes		_ No		Not Applicable	
	4.	Has findin					r been made revious audits?	aware of
		·	Yes	No		_ Not A	pplicable	
		Previo	ous Audit Fin	dings/Rec	ommend	lations:		
			··································					· · · · · · · · · · · · · · · · · · ·
					 			
	5.	Major	concerns of t	the audit	procedu	re:		
								
				· ····				
	6.	Audito	or's Comment	s:				
			- <u>-</u>					

 В.	PRP Project Leader and Project Members Pre-Audit Briefing (may be combined A. above)	<u>with</u>
	7. Has the auditor discussed the reasons for the audit?	
	Yes No Not Applicable	
	8. Have the Project Leader and project members been made aware of how audit will be conducted?	w the
	Yes No Not Applicable	
	9. Have the Project Leader and project members been made aware of:	
	(a) How the results of the audit will be communicated?	
	Yes No Not Applicable	
	(b) How the records of the audit will be maintained?	
	Yes No Not Applicable	
	10. Have the Project Leader and project members been made awar findings/recommendation presented during previous audits?	re of
	Yes No Not Applicable	
	Previous Audit Findings/Recommendations:	
	11. Major concerns of the audit procedure:	
	12. Auditor's Comments:	

	erable include information covering the ten basic tasks generally for PRP searches and discussed in the OWPE/PRC <u>PRP Search</u> lines?
Yes	No
If no, please e	xplain.
Information S	ource:
	PRC PRP Search Manual currently available to the contractor lanager, Project Leader, and team members)?
Yes	No
If no, please e	xplain.
	<u> </u>
Information S	ource:
	E/PRC PRP Search Manual been updated to reflect guideline
Has the OWP changes? Yes	E/PRC PRP Search Manual been updated to reflect guideline No
changes?	No
changes?Yes	No

C.

Proce	edure Name:
Infor	mation Source:
	quality assurance/quality control (QA/QC) procedures in place for wing? (Specify procedure title):
(a)	Information taken from documents referenced in report and incl as attachments.
(b)	Information taken from documents referenced in report and included as attachments
c)	Corporate history/financial status information
d)	Summary of title search records
e)	Computer databases
f)	Other (please specify)
	Information Source:

D.	Projec	t File Review				
	19.	Did the contractor receive a work assignment to perform the work?				
		Yes No				
		If yes, what work assignment number:				
		If yes, when (by Prime):				
		If yes, when (by Subcontractor):				
		If no, please explain.				
		Information Source:				
	20					
	20.	What date was the work assignment initiated by the:				
		EPA Primary Contact?				
		EPA Regional Contact?				
		EPA Headquarters Project Officer?				
		EPA Headquarters Contracting Officer?				
	21.	Did the contractor submit a work plan?				
		Yes No				
		If yes, when?				
		If no, please explain.				
		Information Source:				

Yes	No
If yes, wher	n?
If no, please	explain.
Information	Source:
Deliverable	being audited:
	Draft PRP
	Final PRP
	Draft Letter Report
 .	Final Letter Report
	Other, please explain
Date delive	rable was submitted to:
Prime Cont	ractor:
EPA:	
	ect logbook exist?
	No Not Applicable
	applicable, please explain.

	Yes No Not Applicable
	Information Source:
27.	Comments by the auditor on case file:
PRP	Report Review
28.	Do the tasks outlined in the Work Plan correspond with the tasks reported in the deliverable [Task 3.1.9]?
	Yes No
	If necessary, please explain.
	·
29.	Are directions given by EPA contacts documented in the PRP Report [Tasks 3.1.1 and 3.1.9]?
	Yes No
	If necessary, please explain.

	isks 3.1.9]?		
Yes	No		
If no, please	explain.		
			1-15
·	<u> </u>		
Were interv	iews conducted v	vith gover	nment officials [Task 3.1.5]?
Federal:	Yes _	No _	Number of interviews conducted
State:	Yes _	No .	Number of interviews conducted
Local:	Yes	No	Number of interviews conducted
			
Were forme [Tasks 3.1.5		fficials wit	h knowledge of the site interviewed
[Tasks 3.1.5			•
[Tasks 3.1.5 Yes	, 3.2.5]? No		•
[Tasks 3.1.5 Yes Number of i	, 3.2.5]? No nterviews condu	 cted:	

Yes	No	1	Not Applicable
If no, please	explain.		
Were site-sp	ecific government	files revi	ewed with officials in these agenc
[Task 3.1.1]?			
Federal:	Yes	No	Number of interviews conduc
State:	Yes	No _	Number of interviews conduc
Local:	Yes	No	Number of interviews conduc
List the gove	ernment agencies/	organizati	ons contacted [Tasks 3.1.1 and 3.1
Ager	cy/Organization		Documents Collected
		<u></u>	Yes No
•			Yes No
	. <u>.</u>		Yes No
Were 104(e)	RCRA 3007 letter	s sent to l	PRPs [Tasks 3.1.2]?
	No		
If yes, when	?		
If no, please	explain.		
			· · · · · · · · · ·
			

Yes	No	Not Applicable
If no, please expla	ain.	
		nend that follow-up 104(e) letters be responses [Task 3.1.2]?
Yes	No	Not Applicable
		Ps after the PRP search was comple /or draft questions for EPA [Task 3.
Yes	No	Not Applicable
Yes		Not Applicable
If no, please expla	ain:	Not Applicable discussing the history of operation
If no, please expla	ain: nclude a section	
If no, please explain the state of the report is site [Task 3.1.4]?	nclude a section	
Does the report is site [Task 3.1.4]?	nclude a section	

	Does the report address each PRP's involvement (history of operations) in separate sections within the report?
	Yes No
	Do any significant gaps exist in the history of operations section of the report?
	Yes No
	If yes, please explain.
	-
	Does the report include a section discussing the property history of the site [Task 3.1.10]?
	Yes No
	If no, please explain.
•	
	Does the report include a chain-of-title summary of the site [Tasks 4.1.9 and 3.1.10]?
	Yes No
	If no, please explain.
•	
•	

Yes	No	
If no, please expl	ain.	
Was the chain-of-	itle summary de	veloped by company personnel [Task 3.1.]
Yes	No	Not Applicable
If no, summary d	eveloped by:	
If requested, doe [Tasks 3.1.7 and		lude a section discussing corporate his
(145115 5.117 4114	3.1.3]:	
	-	Not Applicable
	No	Not Applicable
Yes Yes If no, please expl	ain.	Not Applicable de a section discussing financial status [T
Yes Yes	ain.	
Yes Yes If no, please expl	ain. the report inclu	
Yes Yes If no, please expl	no ain. the report inclu	de a section discussing financial status [T
Yes Yes If no, please expl If requested, does 3.1.3]? Yes Yes	no ain. the report inclu	de a section discussing financial status [T

	No	
If no, please expla	iin.	
Is each PRP identi	ified as either a	n owner, operator, transporter, gen
successor [Task 3.		
Yes	No	Not Applicable
If no, please expla	ain.	
	*. ** - ** - *	
		<u> </u>
		C
Are complete add	resses provided	for each identified PRP [Task 3.1
_	resses provided No	for each identified PRP [Task 3.1
Yes	No	for each identified PRP [lask 3.1
_	No	for each identified PRP [Task 3.1
Yes	No	for each identified PRP [Task 3.1
Yes	No	for each identified PRP [Task 3.1
Yes	No	for each identified PRP [Task 3.1
Yes	No	for each identified PRP [Task 3.1
Yes	No	or their designation as a PRP provi

Yes	No	
If no, please expla	in.	
	ontain quantitative waste information for each etric ranking of all PRPs [Tasks 3.1.4 and 3.1.9	
Yes	No	
If yes, was a data	pase used?	
If no, please expla	in.	
If no, please expla	in.	
If no, please expla	in.	
If no, please expla	in.	
If no, please expla	in.	
Is an inventory lis	t of attachments and/or index of records collect ks 3.1.8 and 3.1.9]?	ed inclu
Is an inventory lis	t of attachments and/or index of records collect ks 3.1.8 and 3.1.9]?	ed includ
Is an inventory lis in the report [Tas	t of attachments and/or index of records collect ks 3.1.8 and 3.1.9]?	ed includ
Is an inventory lis	t of attachments and/or index of records collect ks 3.1.8 and 3.1.9]?	ed inclu
Is an inventory lis in the report [Tas	t of attachments and/or index of records collect ks 3.1.8 and 3.1.9]?	ed inclu
Is an inventory lis in the report [Tas	t of attachments and/or index of records collect ks 3.1.8 and 3.1.9]?	ed includ
Is an inventory lis in the report [Tas	t of attachments and/or index of records collect ks 3.1.8 and 3.1.9]?	ed inclu

Are all document refer to the report [Task 3.	rences that are listed in the report present and attact 1.9]?
Yes	_ No
If no, please explain.	
Do supporting docume report [Task 3.1.9]?	nts accurately reflect the written statements in the P
Yes	_ No
If no, please explain.	
Does the report include follow-up research [T	de a section offering recommendations for additional ask3.1.9]?
Yes	_ No
If no, please explain.	
· · · · · · · · · · · · · · · · · · ·	

Findings:	
·	
Recommend	lations:
Discussion	of findings/recommendations made during the previous audit:
	· · · · · · · · · · · · · · · · · · ·

F.

APPENDIX E SAMPLE NARRATIVE EVIDENCE AUDIT REPORT

C.G. Wills, Chief Enforcement Specialists Office

October 4, 1979

Robert Laidlaw, Evidence Audit Unit

Project Review, ABM-Wade Disposal Site, Philadelphia, PA (616)

Attached for your review is the draft evidence audit report for project #616, ABM-Wade Disposal Site, Philadelphia, PA.

EVIDENCE AUDIT REPORT ABM-WADE DISPOSAL SITE, PHILADELPHIA, PA - PROJECT #616 October 4, 1979

An evidence audit was conducted on project documents for project #616 during September 1979. All accountable documents charged to the project are accounted for. Project documents generated within the individual branches are complete as listed on each branch inventory. These documents have been reviewed and are in accordance with NEIC policies and procedures. Field and laboratory operations were not audited.

The following accountable documents were issued to the project coordinator on February 5, 1979:

Logbooks
Custody tags
Chain-of-custody records

616-01 through 616-07 2805 through 2854 0470 through 0485

In addition, six custody locks and two keys were issued on the same date.

Custody tag numbers 2805 through 2826 are attached to sample containers that are located in the chemistry regulated laboratory. These tags are accounted for as follows:

2805-Sta 01	03/14/79 @	0848	2816-Sta	10	03/14/79	@	0955
2806-Sta 02	03/14/79 @	0855	2817-Sta	11	03/14/79	@	1000
2807-Sta 03	03/14/79 @	0900	2818-Sta	12	03/14/79	@	1005
2808-Sta 04	03/14/79@	0905	2819-Sta	13	03/14/79	@	1030
2809-Sta 05	03/14/79 @	0910	2820-Sta	22	03/14/79	@	1035
2810-Sta 06	03/14/79 @	0915	2821-Sta	20	03/14/79	@	1040
2811-Sta 07	03/14/79 @	0930	2822-Sta	14	03/14/79	@	1045
2812-Sta 18	03/14/79 @	0938	2823-Sta	21	03/14/79	@	1048
2813-Sta 19	03/14/79 @	0940	2824-Sta	16	03/14/79	@	1051
2814-Sta 08	13/14/79 @	0945	2825-Sta	15	03/14/79	@	1054
2815-Sta 09	03/14/79 @	0950	2826-Sta	17	03/14/79	@	1100

Once the samples and containers have been disposed of, the tags will be removed and placed in the evidentiary file. Accountable documents that were charged to the project, but which were not used, had the project number removed or were disposed of and are not included in the project evidentiary file. These unused documents are listed below.

Logbook	616-02
Logbook.	616-03
Logbook	616-04
Logbook	616-05
Logbook	616-06
Custody tags	2835 through 2854
Custody records	0477 through 0485

In addition, all custody locks and keys were returned.

The ABM-Wade Disposal Site file consists of the following individual inventoried branch files:

Central file
Field Operations Branch file
Process Control Branch file
Technical Services Branch file
Chemistry Branch file

Each of these files were audited to determine if the documentation procedures are in accordance with NEIC policies and procedures. No deviation was observed.

The review of the Central File demonstrated that all documents were inventoried and numbered with the project number and serialized document number. All of the documents listed on the inventory are present in the file. There was one document (616-CF-15) that pertains to project #618. This was removed and placed in the project file for #618.

The Central File did not contain an official written request for work to be performed. However, the request for work is discussed in a memo from Mr. Benson to the Director, NEIC, on January 26, 1979 (616-CF-16) and further discussed in a memo from Deputy Assistant Director, Operations, on February 2, 1979 (616-CF-12). These memos did detail the objectives of the project and related these objectives to an enforcement action under section 7003 (RCRA).

The Field Operations Branch file demonstrated that all documents are accounted for and are inventoried. All of the documents are properly identified and numbered with the exception of the photographs. The photographs are described on the back of the prints and in the logbook, but are not individually numbered.

The Process Control Branch file contains properly identified and

organized documents. These documents were handled in a manner consistent with NEIC policies and procedures. All documents listed on the inventory are accounted for.

The Technical Services Branch file is inventoried and all documents on the inventory are accounted for. The documents are not individually labeled with the project number or a serialized document number.

The Chemistry Branch file contains properly identified and organized documents. The documents listed on the inventory are all accounted for and are labeled with the project number and a serialized document number. All of the documentation appears to be handled consistent with NEIC policies and procedures.

These files are secured in the evidentiary file located in Building 53.