

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF ENFORCEMENT

PROCEDURES MANUAL FOR THE EVIDENCE AUDIT  
OF HAZARDOUS WASTE SITE INVESTIGATIONS  
BY CONTRACTOR EVIDENCE AUDIT TEAMS

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NATIONAL ENFORCEMENT INVESTIGATIONS CENTER - Denver

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## CHAPTER I

### INTRODUCTION

The Resource Conservation and Recovery Act of 1976 (42 USC 6901) authorizes and requires the Administrator of the Environmental Protection Agency, and the State environmental agencies to establish and operate programs to manage and control hazardous wastes. The EPA Administrator has established a program for the evaluation of hazardous waste sites by contractor teams. Level of effort contracts for Field Investigations Technical Assistance Teams (FIT) and fixed fee contracts for laboratory analyses of liquid, gaseous and solids samples from hazardous waste site (HWS) investigations implement Federal cleanup responsibilities. An additional contractor team staffs the high-hazard laboratory at the National Enforcement Investigations Center (NEIC) at Denver, Colorado.

It is expected that substantial numbers of the HWS investigations that are performed by the FITs will support litigation under the enforcement provisions of the Act. Accordingly, all information, data, samples and documents generated by the FITs must be treated as evidence.

The Agency employs evidence audit teams to evaluate chain-of-custody, document control and evidence security procedures used by EPA employees. Adherence to established procedures is a key element of EPA's approach to case development, and ensures that evidence produced during enforcement investigations is viable and will withstand the rigors of scrutiny in and by the courts. The magnitude of the investigative effort that is to be mounted by the field investigations contract is such that a Contractor Evidence Audit Team (CEAT) is necessary. The CEAT will function in a manner similar to that of the EPA audit teams, except that the laboratory analytical quality control audit function will be performed by EPA employees of the Environmental Monitoring and Support Laboratory at Las Vegas, Nevada. This manual is intended to provide operational guidance to the CEAT.

CEAT members will be assigned to perform audits of field operations, laboratory operations, and document control, or any combination thereof. Points of contact between EPA and the CEAT, for administrative matters, will be between the contractor's Project Manager and EPA's Contracting Officer; contacts will be between the CEAT Team Leader and EPA's Project Officer for operational assignments, direction, and delivery of completed work.

In order to gain a working understanding of the work to be performed, it is necessary that CEAT members thoroughly understand this manual, and the manual entitled "Procedures for Evaluations of Uncontrolled Hazardous Waste Disposal Sites by Contractors." Additional material relevant to the evidence audit function may be found in "NEIC Policies and Procedures Manual." These documents are available from the EPA National Enforcement Investigations Center, Bldg 53, Box 25227, Denver Federal Center, Denver, CO 80225.

## CHAPTER II

### THE EVIDENCE AUDIT FUNCTION

The work of the CEAT is primarily directed toward sampling of the field investigations and laboratory contractors' adherence to EPA procedures for chain-of-custody, document control and security of evidence. The audits to be performed will usually consist of the collection of raw data pertaining to the field investigations and laboratory contractors activities on behalf of EPA; recording the data and observations on checklists; preparation of a summary report, and testifying in support of the authenticity of evidence presented by the contractor personnel. EPA employees may analyze the data supplied and may spot check the performance of the team.

Work 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 practicable time.

Assignments will normally be made in terms of:

- A. Field Investigations Audit,
- B. Laboratory Operations Audit, and/or
- C. Document Control Audit.

Field Investigations Audits and Laboratory Operations Audits are to be conducted according to the checklists and criteria provided in Appendices A, B, and C, and include Document Control Audit procedures. A Document Control Audit is a "desk top" audit of field notebooks, chain-of-custody records and other accountable documents conducted in the EPA Regional Office or the field office of the national contractor, once the documents have been called in.

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 a statement of opinion by a Certified Public Accountant (CPA) member of the CEAT. A sample narrative report is included as Appendix D.

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 will require a chemist or person familiar with laboratory procedures. Teams of two or three persons may be formed to conduct the 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 contract requirement for a CPA was included to ensure that the CEAT embodies a credible internal quality control mechanism. EPA does not expect that each auditor be a CPA, nor that each team include a CPA, however, the CPA(s) is expected to exercise internal controls and participatory oversight such that the CPA(s) 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 CPA(s). (See Appendix E.)

At the conclusion of each audit, the audit plan, the checklists, log books, summary report, and CPA statement, 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 Deputy Project Officer 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 to call as witnesses and they must comply with discovery requests for any case they audited.

### CHAPTER III

#### AUDIT PLANNING

The Project Officer will maintain continuing liaison with the Regional Deputy Project Officers (DPO) to identify the field 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 from the DPO. The project plan details the project's scope, logistics, and schedules. Items addressed in the project plan are:

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

The Project Officer will obtain a list of accountable field documents issued to the FIT Leader. The accountable documents that will be used by the FIT include logbooks, field data records, sample tags, and chain-of-custody records. These documents will be labeled with a project code number and a unique serial number prior to issuance. All accountable field documents are assigned to the project coordinator. The coordinator distributes them to appropriate project personnel and documents the transfer in a logbook. The CEAT will check the list of accountable field documents to see that the proper forms are used during the field investigation, and that entries in and on forms and log books are made in accordance with EPA prescribed procedures. The list of accountable documents will also be used during the document control audit.

With the exception noted below, the Audit Plan is developed by the CEAT Leader in coordination with the FIT Leader 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 FIT 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 regime imposed by the FIT Leader, 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, and attached to the work order, will become the authorization for the CEAT to proceed. Verbal authorization, followed up with a written authorization, may be given by the Project Officer or DPO.



## CHAPTER IV

### FIELD INVESTIGATIONS AUDIT

The CEAT member(s) assigned to a particular audit will contact the FIT Leader in the field and proceed with the schedule for conducting the field 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 TAT project plan, the manual "Procedures for Evaluations of Uncontrolled Hazardous Waste Disposal Sites by Contractors," and directions given by the CEAT Leader and by the Project Officer. Specifics regarding the audit in progress are contained in the audit plan.

The CEAT will maintain a log of all activities performed during the field investigation audit. The log will consist of work papers and checklists. The checklists are included herein as Appendices A-C. The auditor must accurately track the dates and time of audit activities and the document numbers that have been reviewed. Included in the log will be the project codes, the project location, the FIT assigned to the project, and the auditor's name. The checklists must be completed in entirety and any other pertinent information should be recorded in the "comments" section.

Pre-audit communication between the CEAT and the FIT Leader 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 FIT. If possible, the auditor should enter the site with the FIT. The CEAT should give the FIT Leader 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 or agent in charge for the facility, including the plant environmental engineer.

3. If a guard is present at the entrance, the CEAT member should present credentials and suggest that the guard call his/her superior on the phone. The member may request that the guard call the responsible official directly when the name is known.

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 the 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, whom in turn, must notify the Project Officer or DPO.

#### SAMPLE CONTROL

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 properly identified. Sample identification documents must be carefully prepared in order that (a) identification

and chain-of-custody can be maintained, and (b) that sample disposition can be controlled. The sample identification documents that will initially\* be employed by the FITs are:

- |                                    |          |
|------------------------------------|----------|
| 1. Sample Tags                     | Figure 1 |
| 2. Chain-Of-Custody Record         | Figure 2 |
| 3. Organic Traffic Report (VIAR)   | Figure 3 |
| 4. Inorganic Traffic Report (VIAR) | Figure 4 |

Data from on-site measurements are recorded directly into the field logbook or Field Data Records (FDR). Examples of on-site measurements are pH, temperature, conductivity, radiological measurements, etc.

#### Sample Tags

All necessary serialized sample tags are distributed to field investigators by the FIT Leader (or designated participant) and the serial numbers are recorded in the FIT Leader's logbook. Individuals are accountable for each tag assigned to them. A tag is considered in their possession until it has been filled out, attached to a sample, and transferred to another individual with the corresponding Chain-of-Custody Record. At no time are any sample tags to be discarded and if any tags are lost, voided, or damaged, the facts are noted in the appropriate FDR or logbook immediately upon discovery and the FIT Leader is notified. The FIT Leader must, in turn, inform the DPO of the facts related to the lost, voided, or damaged tags. At the completion of the field investigation activities, all unused sample tags are returned to the FIT Leader who checks them against the list of assigned tag serial numbers. Tags attached to those samples which are split with the source or another government agency shall be accounted for by recording the serialized tag numbers.

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:

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\* Forms may be consolidated in the future.

Project Code	- An assigned number
Station Number	- A two-digit number assigned by the FIT 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 military time of collection - for example: 0954
Station Location	- The sampling station description as specified in the project plan
Samplers	- Each sampler is identified
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 will be marked "Blank" or "Duplicate" respectively.

The CEAT will examine a selected number of sample tags for completeness and accuracy. The team member will determine if the station number and location has been identified, the date and time collected are indicated, the type of sample and analysis are specified, the preservative, if used, is identified, and the samplers' signatures appear on the tag. The tag numbers will be checked to ensure that they are the ones issued to the project. The auditor will also determine if the station location accurately identifies where the sample was actually taken and if the sampling methods used were as directed by the project coordinator.

## SAMPLE TAG

Project Code	Station No.:	Month/Day/Year	Time	Designate:	
				Comp.	Grab
Station Location :			Samplers (Signatures) :		
Tag No. <b>N-0001</b>	Lab Sample No	Remarks :	PRESERVATIVE: Yes <input type="checkbox"/> No <input type="checkbox"/>		
			ANALYSES		
			BOD	Anions	
			Solids (TSS) (TDS) (SS)		
			COD, TOC, Nutrients		
			Phenolics		
			Mercury		
			Metals		
			Cyanide		
			Oil and Grease		
			Organics GC/MS		
			Priority Pollutants		
Volatile Organics					
Pesticides					
Mutagenicity					
Bacteriology					

(obverse)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  (Appropriate Address)  
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(reverse)

FIGURE 1

## 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. Serialized chain-of-custody records are assigned and accounted for in a manner similar to that used for sample tags.

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

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

## Custody Procedures

1. In collecting samples for evidence, only that number which 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 water proof 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 FIT Leader 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 (Fig. 2). 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 will be 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" box.
3. Whenever samples are split with a source or government agency, a separate chain-of-custody record 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 of the appropriate party, 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 note the date and time.
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 will be retained by the FIT Leader.
5. If sent by mail, the package will be registered with return receipt requested. Freight bills, post office receipts, and Bills of Lading will be retained as part of the permanent documentation.





The CEAT will select a predetermined number of the 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 appropriately identified; if all custody transfers have been documented and the date and time of transfer recorded.

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

#### VIAR Traffic Forms

The firm VIAR & Co., of Alexandria, VA, has been awarded a contract, by EPA, to manage the shipment of samples from HWS investigations and to allocate workloads to the participating contractor laboratories. The Organic and Inorganic Traffic Reports (Figures 3&4) are to be executed by the FIT and are subject to audit as are the previously discussed documents. The essence of this aspect of the audit is that the information recorded upon the forms is correct and that it coincides with the information on the sample tags and on the Chain-of-Custody Record. Deficiencies noted must be recorded in the audit log, and must be reported to the DPO at first opportunity.

#### FIELD DOCUMENTATION

Observation and measurements during field investigations must be documented in accountable 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 FIT members if called upon to give testimony during legal proceedings.

Sample Number

ORGANICS TRAFFIC REPORT

CASE NUMBER: _____	<b>SAMPLE TYPE: (Check One)</b> <input type="checkbox"/> RUN OFF <input type="checkbox"/> WELL <input type="checkbox"/> RECEIVING WATER <input type="checkbox"/> LEACHATE <input type="checkbox"/> EFFLUENT <input type="checkbox"/> OTHER _____ (specify)	SHIP TO: _____
SAMPLE SITE NAME: _____		ATTN: _____
_____		
_____		
REGIONAL OFFICE: _____	Mark Volume Level on Sample Bottle	ANALYSIS LAB: _____
Sampling Personnel: _____	Date Sampled _____	Rec'd by: _____
(Name) _____	EXTRACTABLE	Date/Time Rec'd: _____
(Phone) _____	EXTRACTABLE	Sample Condition on Receipt
Sampling Date: _____	EXTRACTABLE	
(Begin) _____ (End) _____	EXTRACTABLE	
	VOA UNPRESERVED	
<b>SHIPPING INFORMATION</b>	VOA UNPRESERVED (Duplicate)	
Name of Shipper: _____		
Date Shipped: _____		
Airbill Number: _____		

DESCRIPTION OF SAMPLE LOCATION:

SPECIAL HANDLING INSTRUCTIONS:  
(e.g., safety precautions, hazardous nature)


 U.S. ENVIRONMENTAL PROTECTION AGENCY - HWIS Sample Management Office P.O. Box 818, Alexandria, VA 22313-7038 / 557-2491 / TTS 557-2491 / 777-7777		Sample Number _____
<h1>INORGANICS TRAFFIC REPORT</h1>		
① Case Number. _____ Sample Site Name / Code: _____ _____ _____ _____	② Sample Type: (Check One) <input type="checkbox"/> Run Off <input type="checkbox"/> Well Water <input type="checkbox"/> Receiving Water <input type="checkbox"/> Leachate <input type="checkbox"/> Effluent <input type="checkbox"/> Other _____ (specify)	③ Ship To.   Attn: _____
④ Regional Office. _____ Sampling Personnel (Name) _____ (Phone) _____ Sampling Date (Begin) _____ (End) _____	⑤ Shipping Information: Name Of Shipper _____ Date Shipped _____ Airbill Number _____	
⑥ Description of Sample Location     MATCHES ORGANICS SAMPLE NO. _____	⑦ Mark Volume Level On Sample Bottle Date Sampled _____ Task 1 & 2 _____ Task 3 Ammonia & TOC _____ Fluoride & pH _____ Sulfide _____ Cyanide _____	

FIGURE 4

### Logbooks

Project logbooks will be reviewed by the CEAT during the field investigation audit to see that each is signed and all entries are dated. It should also have a document control number on the inside cover.

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 the later written reports, it must contain only facts and observations. Language should be objective, factual and free of personal feelings or other terminology which might prove inappropriate. Entries made by individuals other than the person to whom the logbook was assigned are dated and signed by the individual making the entry.

The logbook of the FIT Leader will document the transfer of logbooks to the individuals who have been designated to perform specific tasks on the survey. All pertinent information should be recorded in these logbooks from the time each individual is assigned to the project until the project is completed.

### Field Data Records

Where appropriate, serialized Field Data Records (in the form of individual sheets or bound logbooks) are maintained for each survey sampling station or location and the project code and station number are usually recorded on each page. The FIT Leader also numbers the FDR covers with the appropriate project code and station number. All in-situ measurements and field observations are recorded in the FDR's 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 insuring that FDR's are present during all monitoring activities and are stored safely to avoid possible tampering. Any lost, damaged or voided FDR's are reported to the project coordinator.

The CEAT will review field data records in the same manner as the log-books.

### Photographs

Photographs may be taken for evidentiary purposes and these must also be controlled. The CEAT will review the 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 locations 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.

### Corrections To Documentation

As previously noted, unless prohibited by weather conditions, all original data recorded in logbooks, FDR's, sample tags, custody records and other data sheet entries are written with waterproof ink. None of the accountable serialized 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 an accountable document assigned to one individual, that individual may make corrections simply by crossing a line through the error and entering the correct information. The erroneous information should not be obliterated. Any subsequent error discovered on an accountable document should be corrected by the person who made the entry. All subsequent corrections must be initialed and dated.

### SAMPLING OPERATIONS

The CEAT will review sampling operations to determine if they are performed as stated in the project plan or as directed by the FIT Leader. The

proper number of samples should be collected at the assigned locations. The CEAT should check to determine that the samples are in proper containers and are properly preserved.

The CEAT will determine if the required field measurements and quality assurance checks are being performed and documented as directed.

## CHAPTER V

### LABORATORY OPERATIONS AUDIT

The CEAT will perform audits of laboratory activities in the contractor laboratories that are supporting the HWS investigations. The assignment will be made by the Project Officer. The audit will address sample control, laboratory documentation, security of evidence and quality assurance. The evaluation will be based on the project plan, directions from the Laboratory Contract Project Officer, and instructions provided the laboratory personnel by the laboratory director.

The auditor's worksheets used for the field investigation audit will be continued so that all project audit information will be recorded in one set of records. Checklists for laboratory activities (Appendix B) will be filled out. The auditor will record the project number, the laboratory contractor, the laboratory location, the date, and the auditor's signature.

#### SAMPLE CONTROL

The CEAT will determine the number of samples that were collected during the field investigation and verify that all have arrived at the laboratory. Each sample will have an identification tag and be recorded on a chain-of-custody record. The auditor will examine tags and chain-of-custody records to see that descriptions, dates, and times match. All transfers of custody of samples should be documented and the auditor will review a predetermined representative number and trace custody from time of collection to the laboratory. The auditor will determine from laboratory documentation if the samples were received under custody.

The following laboratory custody procedures will be followed:

#### 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, pickup, courier, etc., is entered in the "Remarks" box. The custodian then enters the sample tag data into a bound logbook which is arranged by project code and station number. 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. 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 will be recorded in logbooks or on serialized bench sheets. All documentation will be accountable once project information is recorded on it. Each document will show 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 will be labeled in a similar manner. All other documentation concerning the project such as correspondence, report notes, methods, documents, references, sample inventories, checkout logs, etc., will become part of the permanent record and will be serially numbered and inventoried.

The logbook needs 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 will review 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.

Before a final laboratory report is sent out, the laboratory will assemble and cross-check information on corresponding sample tags, custody records, bench sheets, analyst logbooks, and sample entry logbooks to ensure that data pertaining to each particular sample is consistent throughout the record. A statement that all project evidentiary data has been accounted for, and an explanation of any deviations from established procedures should be included in the laboratory project file.

## CHAPTER VI

### QUALITY ASSURANCE

The contract laboratories must follow specified quality assurance procedures to assure that high-quality data are produced. The Environmental Monitoring and Support Laboratory-Las Vegas (EMSL-LV) will review the procedures and the laboratory documentation to determine if these operations have been performed. The audit activities of the CEAT must be closely coordinated with the QA activities of EMSL-LV. Where possible Laboratory Audits and QA evaluations should be coordinated by the Project Officer or Deputy.

Methods used by contractor laboratories should be specified and a quality assurance program detailed. All quality assurance data and observations shall be recorded in logbooks or on bench sheets. The quality assurance program consists of quality control and quality assurance documentation.

Quality control is the documentation and evaluation of methods, personnel training, and routine performance checks integral to each measurement process. Examples of routine checks are instrument maintenance and calibration, and blank, duplicate, and spiked sample determinations.

Quality assurance documents the independent checks performed to verify that the quality control system is effective and adequate. An example is use of laboratory reference standards. Quality assurance also consists of accuracy and precision of data. Accuracy is the degree of agreement between a measured value and the true value. It is difficult to determine accuracy of a measurement on an environmental sample because the true value is unknown. Therefore, the accuracy of an individual measurement procedure is usually determined by analyzing a standard reference material, or by spiking a sample with a known quantity of material and re-analyzing.

Precision is the degree of agreement between repeated measurements using the same method or technique.

The primary responsibility for the proper performance of a measurement including QC checks lies with the analyst making the measurement. The analyst evaluates the QC results as soon as possible after the measurement is performed. When QC results are determined to be outside accepted limits, the measurement process is stopped, problems are corrected and documented, and then the measurement is continued.

The quality assurance program data is to be summarized by EMSL-LV and made a part of the permanent project file.

## CHAPTER VII

### DOCUMENT CONTROL AUDIT

Once the field and laboratory operations have been completed, the individual files assembled from these groups should be sent to the Deputy Project Officer at the EPA Regional office. The CEAT will review the assembled file in the regional EPA office and make an evaluation based on file organization and format, accountability of documents based on the document numbering system and inventory, and separation and control of any confidential information or confidential business information claimed under the Toxic Substances Control Act.

The FITs and laboratories must establish orderly filing and inventory systems. The following describes the filing and document control system used by the NEIC in preparing project files. This system will serve as a basis for comparison with other systems.

#### File 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 Cards, Graphs, etc.
- G. Correspondence
  - 1. Inter-office
  - 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
- L. Litigation Documents
- M. Miscellaneous - photos, maps, drawings, etc.
- N. Final Report

No confidential material should be included in this file. Cover draft reports should be disposed of and only the final report should appear in the file. Confidential material must be maintained in a separate file under custody of the Document Control Officer in the EPA Regional Office. Confidential material may be 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, will be a determination that the FIT and contract laboratory filing systems ensure document accountability and file security.

#### Document Numbering System and Inventory Procedure

To provide accountability to the appropriate individuals, 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 two-digit document number. For example, the first item in the Chemistry Branch file for project 123 would have the number 123-CB-01.

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

123-CB-01	5/15/76 Memo from Mary Smith to John Doe re Toxicity and Health Effects Data
123-CB-02	Computer Printouts, Blank #2, Air GC/MS, 20 pages
123-CB-03	6/1/76 Handwritten notes of John Doe, 3 pages

Two copies of the inventory list accompany the files. One copy is put in the evidentiary file and one copy is maintained by the Deputy Project Officer in the Regional office. The file is now accountable and any documents removed from it must be checked out through the person maintaining the file.

The document control audit specifically consists of checking each document submitted for accountability. All documents used for the field investigation should be checked against the list of field documents issued to the project coordinator. Any documents missing or unaccounted for must be explained in writing. Documents other than those issued should be reviewed to ensure that they all appear on an inventory and that all documents listed on the inventory are accounted for. The auditor should check the documents for the proper numbering system.

The documents shall also be examined to see that all necessary items such as signatures, dates, and project code are included.

#### Confidential Information

The CEAT will examine any documents that are marked "confidential" and determine 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 shall be marked as such and placed in a locked filing cabinet or safe. Only personnel authorized by the Regional Administrator, Enforcement Division Director or Deputy Project Officer shall be 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.

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 such requests shall be referred to the responsible Regional organizational unit.

#### TOXIC SUBSTANCES CONTROL ACT CONFIDENTIAL BUSINESS INFORMATION

During the course of an evidence audit the CEAT may be confronted with 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 pre-audit discussions.

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.

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 and the TSCA Confidential Business Information Security Briefing Booklet.

Some examples of the requirements for handling of TSCA Confidential 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.

Willfull 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 year or both.

The foregoing is a brief summary of the requirements imposed for handling of TSCA Confidential Business Information. It is essential that contractor 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.

Contractor personnel should not accept nor assume custody of material or data declared "TSCA Confidential" unless (a) the matter has been thoroughly discussed with the Deputy Project 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.

APPENDIX A  
FIELD INVESTIGATIONS AUDIT CHECKLIST

EVIDENCE AUDIT CHECKLISTField Investigations Audit

Project No. \_\_\_\_\_

Date \_\_\_\_\_

Project Location \_\_\_\_\_

Signature \_\_\_\_\_

TAT Team \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

1) Was a project coordinator been appointed?

Comments \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

2) Was a project plan prepared?

Comments \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

3) Was a briefing held for project participants?

Comments \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

4) Were additional instructions given to project participants?

Comments \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 5) Is there a written list of sampling locations  
at \_\_\_\_\_

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 6) Is there a list of accountable field documents  
checked out to the project coordinator?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 7) Is the transfer of field documents from the  
coordinator to field participants documented  
in a logbook?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 8) Are samples collected as stated in the project  
plan or as directed by the coordinator?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 9) Are samples collected in the type of containers  
specified in the project plan or as directed  
by the coordinator?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 10) Are samples preserved as specified in the project plan or as directed by the coordinator?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 11) Are the number, frequency, and type of samples collected as specified in the project plan or as directed by the coordinator?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 12) Are the number, frequency, and type of measurements and observations taken as specified in the project plan or as directed by the coordinator?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 13) Are samples identified with sample tags?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 14) Are blank and duplicate samples properly identified?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 15) Are sample tag serial numbers for samples split with other organizations recorded in a logbook

or on a chain-of-custody record?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 16) Are samples listed on a chain-of-custody record?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 17) Is chain-of-custody documented and maintained?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 18) Are quality assurance checks performed as directed?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 19) Are photographs documented in logbooks as required?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 20) Have any accountable documents been lost?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

21) Have any accountable documents been voided?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

22) Have any accountable documents been disposed of?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APPENDIX B  
LABORATORY OPERATIONS AUDIT CHECKLIST



EVIDENCE AUDIT CHECKLISTLaboratory Operations

Project No. \_\_\_\_\_

Project Location \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Contractor Laboratory \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

- 1) Is a project plan available to laboratory personnel or have instructions been given by the coordinator or supervisor?

Comments \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2) Were all samples collected during the field investigation received by the laboratory?

Comments \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3) Are sample tags on all containers?

Comments \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 4) Are samples received by laboratory accompanied by a chain-of-custody record?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 5) Can custody of samples be traced from the time of collection to receipt by the laboratory?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 6) Were the samples received under custody?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 7) Was the shipping container properly secured?

Comments \_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 8) Is a laboratory custodian designated?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 9) Were sample tags and chain-of-custody records checked to see that information matches?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Yes \_\_\_\_\_ No \_\_\_\_\_ 10) Were samples logged in to the laboratory record?  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 11) Are samples stored in a secure area?  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 12) Are samples stored in a way to maintain preservation?  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 13) Are sample holding time limitations satisfied?  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 14) Do laboratory records demonstrate personnel transferring and receiving samples in the lab?  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 15) Once analysis is completed, are sample tags removed and incorporated into the permanent record?  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 16)

Are analytical methods documented and available to analysts?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 17)

Are quality assurance procedures documented and available to analysts?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 18)

Are quality assurance procedures recorded as required?

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APPENDIX C  
DOCUMENT CONTROL AUDIT CHECKLIST

## EVIDENCE AUDIT DOCUMENT CHECKLIST

Project No. \_\_\_\_\_

Project Location \_\_\_\_\_

Date \_\_\_\_\_

IAT Team

Signature \_\_\_\_\_

[illegible]

EVIDENCE AUDIT CHECKLISTDocument Control Audit

Project No. \_\_\_\_\_

Project Location \_\_\_\_\_

Date \_\_\_\_\_

File Location \_\_\_\_\_

Signature \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 1) Have the individual files been assembled (field investigation, laboratory)?

Comments \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 2) Is there an inventory for each file?

Comments \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 3) Is there a list of accountable field documents?

Comments \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_ 4) Are all accountable field documents present or accounted for? (fill out additional checklist)

Comments \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

5) Is there a document numbering system?

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 additional project documents which have been declared confidential?

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



- Yes \_\_\_\_\_ No \_\_\_\_\_ 11) Are there confidential documents stored in a secure area separate from the other project documents?
- Comments \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 12) Is access to the confidential files restricted?
- Comments \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 13) Have the confidential documents been marked or stamped "Confidential"?
- Comments \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 14) Is the confidential information inventoried?
- Comments \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 15) Is the confidential information numbered for document control?
- Comments \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- Yes \_\_\_\_\_ No \_\_\_\_\_ 16) Have any documents been claimed confidential under TSCA?
- Comments \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Project No. \_\_\_\_\_

C-5

Project Location \_\_\_\_\_

Document Type \_\_\_\_\_

Date \_\_\_\_\_

Numbers Issued \_\_\_\_\_

Signature \_\_\_\_\_

Document No.	Returned	Comments	Document No.	Returned	Comments
01			51		
02			52		
03			53		
04			54		
05			55		
06			56		
07			57		
08			58		
09			59		
10			60		
11			61		
12			62		
13			63		
14			64		
15			65		
16			66		
17			67		
18			68		
19			69		
20			70		
21			71		
22			72		
23			73		
24			74		
25			75		
26			76		
27			77		
28			78		
29			79		
30			80		
31			81		
32			82		
33			83		
34			84		
35			85		
36			86		
37			87		
38			88		
39			89		
40			90		
41			91		
42			92		
43			93		
44			94		
45			95		
46			96		
47			97		
48			98		
49			99		
50			100		

APPENDIX D  
SAMPLE NARRATIVE EVIDENCE AUDIT REPORT

ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF ENFORCEMENT  
NATIONAL FIELD INVESTIGATIONS CENTER-- DENVER  
BUILDING 53, BOX 25227, DENVER FEDERAL CENTER  
DENVER, COLORADO 80225

TO C.G. Wills, Chief, Enforcement Specialists Office DATE October 4, 1979

FROM Robert Laidlaw, Evidence Audit Unit

SUBJECT 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	616-01 through 616-07
custody tags	2805-2854
chain of custody records	0474-0485

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	3/14/79 @ 0848
2806-Sta 02	3/14/79 @ 0855
2807-Sta 03	3/14/79 @ 0900
2808-Sta 04	3/14/79 @ 0905
2809-Sta 05	3/14/79 @ 0910
2810-Sta 06	3/14/79 @ 0915
2811-Sta 07	3/14/79 @ 0930
2812-Sta 18	3/14/79 @ 0938
2813-Sta 19	3/14/79 @ 0940
2814-Sta 08	3/14/79 @ 0945
2815-Sta 09	3/14/79 @ 0950

2816-Sta 10 3/14/79 @ 0955  
2817-Sta 11 3/14/79 @ 1000  
2818-Sta 12 3/14/79 @ 1005  
2819-Sta 13 3/14/79 @ 1030  
2820-Sta 22 3/14/79 @ 1035  
2821-Sta 20 3/14/79 @ 1040  
2822-Sta 14 3/14/79 @ 1045  
2823-Sta 21 3/14/79 @ 1048  
2824-Sta 16 3/14/79 @ 1051  
2825-Sta 15 3/14/79 @ 1054  
2826-Sta 17 3/14/79 @ 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 evaluated to determine if the documentation contained any significant deviations from accepted NEIC policies and procedures. In my opinion, there were no significant deviations in the documentation that would compromise the evidence for this project.

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 the 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. The branch file contained references to methods used for metals analysis. Samples were analyzed by ICP-AES. There is no standard method available for analysis of metals from sediment or solid waste samples. Quality assurance work was used to demonstrate the acceptability of this method. It would have been desirable to have described in detail the procedure and the accompanying quality assurance work.

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



APPENDIX E  
EVIDENCE AUDIT STATEMENT

Date \_\_\_\_\_

TO: \_\_\_\_\_, Project Officer  
EPA National Enforcement Investigations Center  
Bldg 53, Box 25227, Denver Federal Center  
Denver, Colorado 80225

SUBJECT: Evidence Audit Statement, Project No. \_\_\_\_\_

My opinion, based upon my review of the documentation generated by the Field Investigation/Laboratory Operations/Document Control activities for Project Number                     , is that the Chain-of-Custody and Evidence Security requirements meet or exceed those specified by EPA's "NEIC Policies and Procedures Manual" (EPA 330/9-78-001). Exceptions to this statement are noted below.