



The Weakest Link: Chain of Custody and its role in legally defensible data

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Vancouver, WA
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Chris Desiderati, Source Control Specialist
(ex Laboratory Analyst)



Outline

- What is a Chain of Custody?
- Where does it all fit?
- Who Cares?
- Case Study
- Questions



Disclaimer:

I AM NOT A LAWYER





What is a Chain of Custody (COC)?

A set of procedures which “[compromise]... the following elements:

1. Maintaining custody of samples or other evidence, and
2. Documentation of the chain-of-custody for evidence”

US EPA SESD, *Sample and Evidence Management*, 2013



What is a Chain of Custody (COC)? (cont.)

Samples and data are considered to be in your custody when:

1. **“Possession is 9/10 of the law”**
2. **“Possession is 9/10 of the law”**
3. They are in your physical possession and then locked up so that tampering cannot occur, and
4. They are kept in a secured area, with access restricted to authorized personnel only.



What is a COC Record?

1. “Record that documents the possession of the samples from the time of collection to the receipt in the laboratory. This record generally includes: number and types of containers, the mode of collection, the collector, time of collection, preservation, and requested analyses.”

TNI Standard, Vol 1, Module 2: Quality Systems General Requirements, Rev. 1.1

2. A “form... [that] documents everything about your samples, including dates, time of sample collection, types of containers, sample preservation used, and what parameters the lab should test.”

ODEQ Stormwater Newsletter, 11/2017



What is a COC Record? (cont.)

**CLACKAMAS COUNTY
SERVICE DISTRICT #1**



**WATER
ENVIRONMENT
SERVICES**

**INDUSTRIAL PRETREATMENT
PROCEDURES MANUAL**

The term is often specifically defined in:

1. Pretreatment Program's Procedures Manual
2. Lab's Quality Assurance Manual
(what's that?)

QUALITY ASSURANCE MANUAL

FOR



**CLACKAMAS COUNTY
WATER ENVIRONMENT SERVICES
WATER QUALITY LABORATORY**

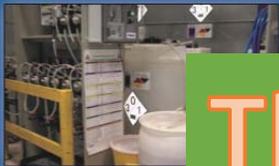
15941 S. Agnes Avenue, Bldg. B
Oregon City, OR 97045
(503) 557-2839



What is a COC Record? (cont.)

U.S. Environmental Protection Agency

Industrial User Inspection and Sampling Manual For POTWs



§ 3.7.6 Sample Documentation

“Chain-of-Custody records are crucial if the analytical data are to be used in a enforcement proceeding because they allow such data to be traced back to the person who made the record.”

The fewer hands the better

POTWs, Jan '17

Can you answer this question affirmatively?

Can I prove the validity of these data with this COC record alone in front of a judge?



U.S. Environmental Protection Agency
Office of Compliance
EPA-831B17001 January 2017





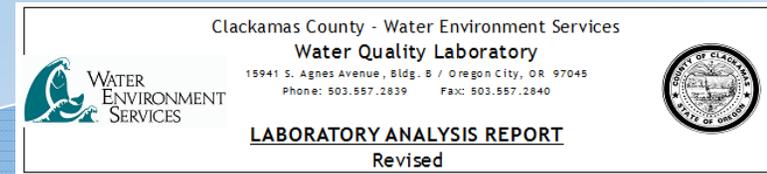
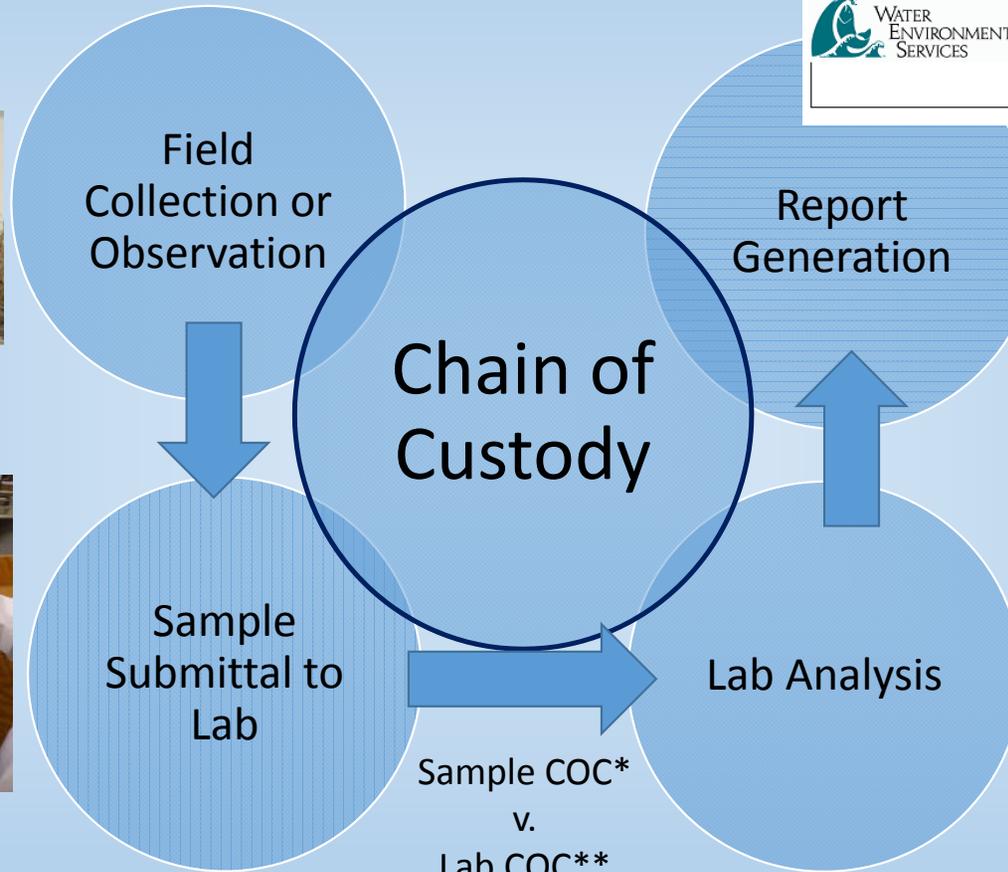
Where does it all fit?



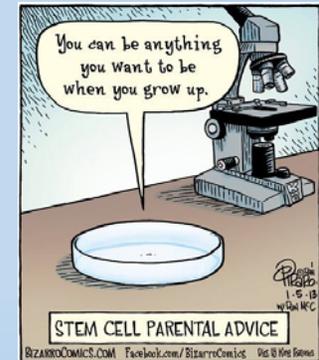
- Field notebook
- CoC (optional)



- CoC
- Delivery
- Relinquish/Receive
- Data Entry in LIMS



- Original CoC may accompany lab report
- Records retained per 40 CFR § 403.12(o)(2)and(3)



- Analyze parameters per CoC and method
- Data Entry in LIMS

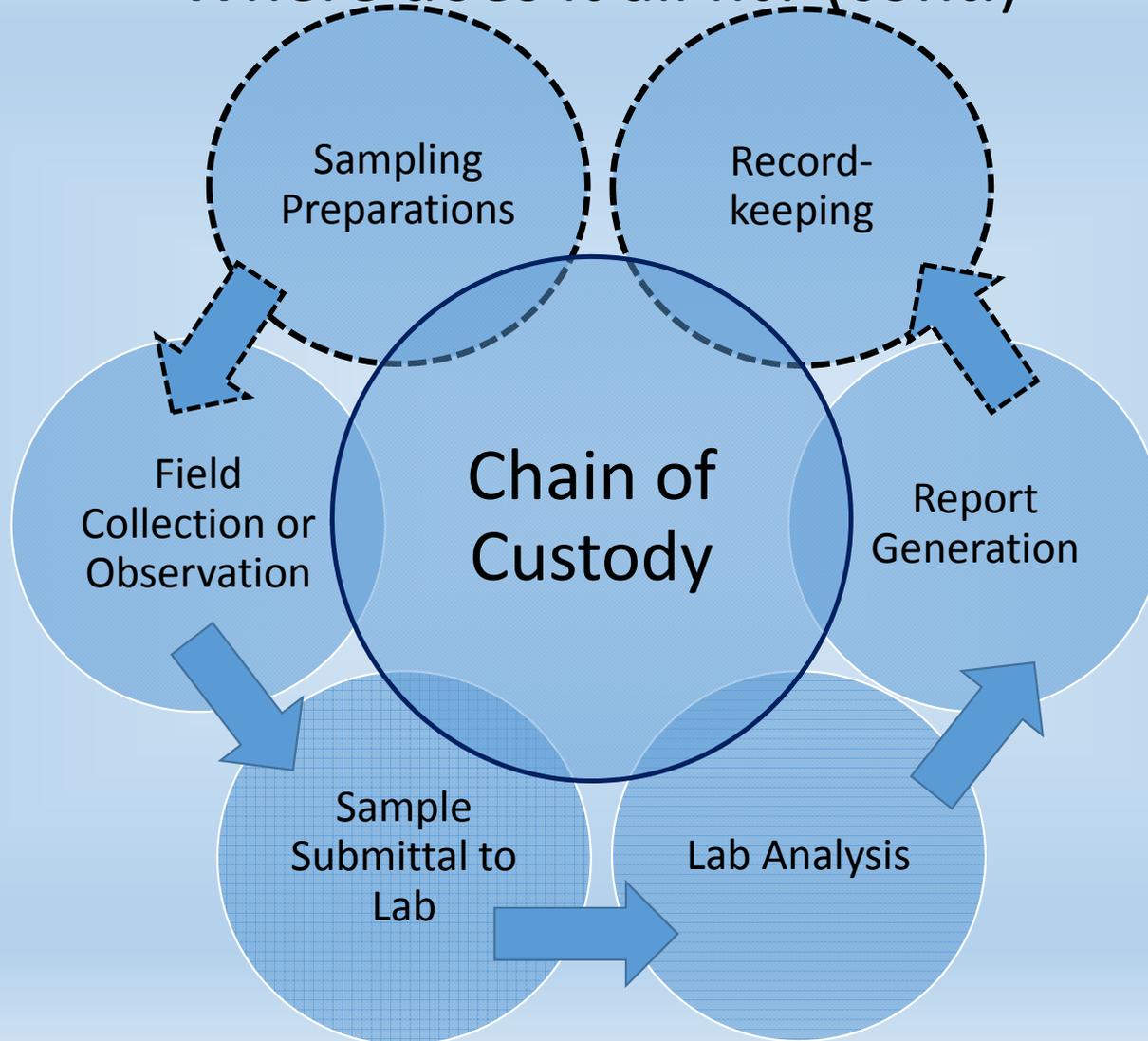


Where does it all fit? (cont.)



© 2017 Quality Environmental Containers, Inc.

- CoC (optional)
- Pre-preserved bottle prep
- Custody Seals



- Data acquisition
- Data ID
- CoC, Report resting place
- Retention Policy



Who Cares?

In other words, is it required?

40 CFR § 403.12(o)(1)(i-v) Record-keeping requirements:

(1) Any Industrial User and POTW subject to the reporting requirements established in this section *shall* maintain records of all information resulting from any monitoring activities required in this section...

Such records *shall* include:

- (i) The date, exact place, method, and time of sampling and the names of the person or persons taking the samples;
- (ii) The dates analyses were performed;
- (iii) Who performed the analyses;
- (iv) The analytical techniques/methods used; and
- (v) The results of such analyses.



Who Cares? (cont)

One may notice a comparison with language in the NPDES sections...

40 CFR § 122.41 (j)(3)(i-vi) Conditions applicable to all permits – Monitoring and Records

(3) Records of Monitoring information shall include

- (i) The date, exact place, and time of sampling or measurements;
- (ii) The individual(s) who performed the sampling measurements;
- (iii) The date(s) analyses were performed;
- (iv) The individual(s) who performed the analyses;
- (v) The analytical technique or method used; and
- (vi) The results of such analyses.



Who Cares? (cont.)

We all ought to!

The main goal of an accurate CoC record is to

“Maintain and document possession of samples... from the time of collection until they or the data derived from the samples are” disposed of.

Investigations SOP and QA Manual, USEPA (Nov, 2001)

An ounce of prevention is worth a pound of cure

Better Safe than Sorry!

- **Permit compliance – “Sample collection and analysis, and that gathering of compliance data, shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions.” Permit No. 101168, Schedule E. #7 Compliance Monitoring Sample Collection and Analysis**



Case Study

EPA Region 3 v. Chippewa Hazardous Waste Remediation & Energy, Inc. dba Chippewa Hazardous Waste, Inc.
CAA Appeal No. 04-02. Decided 09/30/05

Mr. Stahl



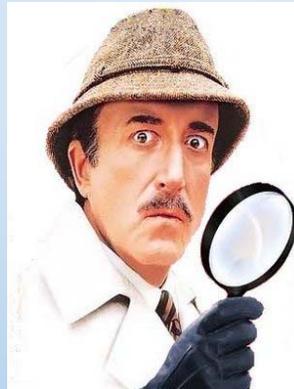
Building Inspector
City of Wheeling

Mr. Evans



Site Supervisor
Chippewa

Mr. Foster



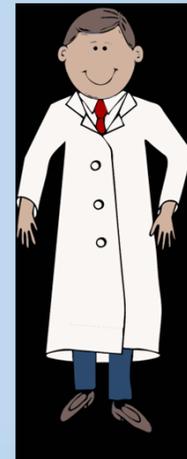
Asbestos Inspector
EPA Region 3

Mr. Ponak



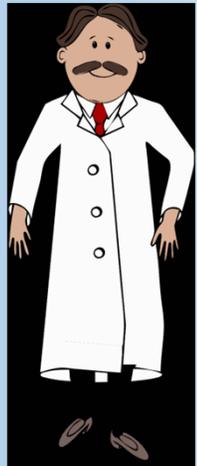
Scientist
EPA Region 3 Enforcement

Mr. Sieracki



Employee

Mr. Forostiak



Analyst

Criterion Laboratories



Case Study (cont.)

EPA Region 3 v. Chippewa Hazardous Waste Remediation & Energy, Inc. dba Chippewa Hazardous Waste, Inc.
CAA Appeal No. 04-02. Decided 09/30/05

*Administrative Case, board and court not bound by the Federal Rules of Evidence.
Appellant challenges evidentiary burden of proof is not being met by EPA Region 3
4 arguments on appeal, 2 of which involve evidence brought by EPA Region 3*

- 1) Chippewa claims EPA could not demonstrate Chippewa was responsible for removing “regulated asbestos-containing materials” (RACM) from the OVCC church roof.
- 2) Chippewa claimed EPA could not demonstrate the materials analyzed by a laboratory and found to contain RACM were the same materials collected at the job site by the inspector (i.e. “missing links”).



Case Study (cont.)

EPA Region 3 v. Chippewa Hazardous Waste Remediation & Energy, Inc. dba Chippewa Hazardous Waste, Inc.
CAA Appeal No. 04-02. Decided 09/30/05

May 2001

Mon	Tue	Wed	Thu	Fri
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

- **Mr. Stahl** responds to call, visits site, and after speaking to **Mr. Evans**, refers **Mr. Foster** to project.
- **Mr. Foster** visits sites, observes asbestos removal in violation of NESHAP, consults with site supervisor, **Mr. Evans**.
- **Mr. Foster** collects various physical evidence, including roofing material (10 samples) and locks samples in car trunk.
- **Mr. Foster** locks samples in office, completes field report, and prepares CoC record.



Case Study (cont.)

EPA Region 3 v. Chippewa Hazardous Waste Remediation & Energy, Inc. dba Chippewa Hazardous Waste, Inc.
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- **Mr. Foster** returns to site, and again observes improper asbestos removal. Speaks again with supervisor **Mr. Evans**.
- **Mr. Foster** collects more asbestos material (3 samples), locks them in his trunk, completes a field report, and returns to his office.
- **Mr. Foster** prepares a 2nd CoC record, seals samples according to EPA procedure, and sends both sets to **Mr. Ponak** (via FedEx)



Case Study (cont.)

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- **Mr. Ponak** receives and signs for samples. **Mr. Foster** mentions to **Mr. Ponak** about potential violation regarding samples.
- **Mr. Ponak** completes CoC and sends via FedEx to Criterion Laboratories for asbestos analysis.



Case Study (cont.)

EPA Region 3 v. Chippewa Hazardous Waste Remediation & Energy, Inc. dba Chippewa Hazardous Waste, Inc.
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- Samples received by Criterion employee **Mr. Sieracki**, via CoC Record.
- **Mr. Forostiak**, the Criterion employee who analyzed the samples, confirms samples contain RACM.



Case Study (cont.)

EPA Region 3 v. Chippewa Hazardous Waste Remediation & Energy, Inc. dba Chippewa Hazardous Waste, Inc.
CAA Appeal No. 04-02. Decided 09/30/05

*Administrative Case, board and court not bound by the Federal Rules of Evidence, rather by "C.R.O.P."
Appellant challenges evidentiary burden of proof is not being met by EPA Region 3
Appeals board, in Final Decision, sided with EPA Region 3 as meeting its burden of proof ; specifically*

- 1) Chippewa claims EPA could not demonstrate Chippewa was responsible for removing "regulated asbestos-containing materials" (RACM) from a church roof. **Board affirms judge's finding due to Chippewa's admission of their action in a submitted and certified answer, as well as testimony in pre-hearing exchanges.**
- 2) Chippewa claimed EPA could not demonstrate the materials analyzed by a laboratory and found to contain RACM were the same materials collected at the job site by the inspector (i.e. "missing links"). **Board found the region presented a chain of custody that "rendered the sampling evidence reliable and thus admissible."**



Case Study (cont.)

EPA Region 3 v. Chippewa Hazardous Waste Remediation & Energy, Inc. dba Chippewa Hazardous Waste, Inc.

January 20, 2016

CAA Appeal No. 04-02. Decided 09/30/05

---No “missing links” as claimed by Chippewa---

“A chain-of-custody record is used to demonstrate that evidence is what it is purported to be. The preponderance of the evidence shows that **Mr. Foster, Mr. Ponak**, and the **Criterion employees** all handled the OVCC asbestos samples according to established procedures developed to prevent samples from being tampered with, and we therefore have **no reason to second-guess** the [judge’s] finding that the sampling evidence is what it is purported to be.”

[emphasis added]



Training and Resources

- Self-paced online course: “Chain-of-Custody Procedures for Samples and Data”
<http://www.4cleanair.org/Oldmembers/members/committee/training/Chainofcustodyflyer.pdf>
- A 50-minute self-instruction course about chain of custody philosophy and practice.
<https://www.apti-learn.net/LMS/EPAHomePage.aspx>
- Based in Texas, an Environmental Crime Program Training project that offers free on-line courses.
<http://www.encrypt.org/about.html>
- Related Chain-of-Custody cases with unhappy endings:
EPA Region 7 v. L&C Services, Inc. CAA Appeal 98-1, January 15, 1999.
R. v Vale Newfoundland & Labrador Limited, 2016 NPLC January 20, 2016.



Questions?