The DOECAP Remote Audit

DOECAP

Findings and Observations

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September 12, 2022

DOECAP
DEPARTMENT OF ENERGY
CONSOLIDATED AUDIT PROGRAM

Definitions

Finding: A non-compliance with any of the following:

- regulatory requirement
- facility procedure requirement
- Instructions for completed forms related to a facility procedural requirement (confined space permit)

Categories of Findings

- Priority One (I): a noncompliance that is associated with a serious breach of a program requirements.
  - Serious enough to warrant recommendation to stop sending DOE waste to that facility

Categories of Findings, continued

- Priority Two (II). A single or repeated occurrence of a non-compliance that is off normal

  – Does not put DOE waste disposition at serious risk

Regulatory Non- Compliance Examples

- Federal or state or local regulation that the facility is not complying with
  - ESH Program Requirement that is not addressed by the facility procedures: Supplied Air is provided for respirator use but Grade D air Certificate of Analysis is not periodically required in any Procedure
  - EC Permit requirement that is not adhered to : Weekly Central Accumulation Area Inspection not conducted

Regulatory Non- Compliance Examples

- Data and Sample Analysis: the laboratory tests that performed to determine land ban parameters have been treated are not required to be conducted by a Laboratory that is NELAC (or State Equivalent where required) certified.

NELAP: National Laboratory Accreditation Program

Texas Commission on Environmental Quality

NELAP-Recognized Laboratory Accreditation is hereby awarded to

Environmental Chemistry, Inc.
2525 West Belfort, Suite 175
Houston, TX 77054-5027

in accordance with Texas Water Code Chapter 5, Subchapter R, Title 30 Texas Administrative Code Chapter 25, an the National Environmental Laboratory Accreditation Program.

The laboratory's scope of accreditation includes the fields of accreditation that accompany this certificate. Continued accreditation deper upon successful ongoing participation in the program. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Certificate Number: T104704228-11-3
Effective Date: 7/1/2011
Expiration Date: 6/30/2012

Executive Director Texas Commission on Environmental Quality

Regulatory Non- Compliance Examples

QA : An NRC Quality Assurance Plan is not in place for a facility that receives and treats radioactive waste.

Priority I ?

Priority 2?

Examples of Regulatory Non- Compliances

- ESH Program Requirement that is not addressed by the facility procedures : annual audit required by OSHA but is missing from Lock Out Tagout Procedure AND is not being performed
- Environmental requirement for Hazardous Waste Treatment: Weekly inspection of Central Accumulation Area is not

Definitions, continued

Observation : A program requirement is in place, but its implementation is not in compliance with Best Management Practices.

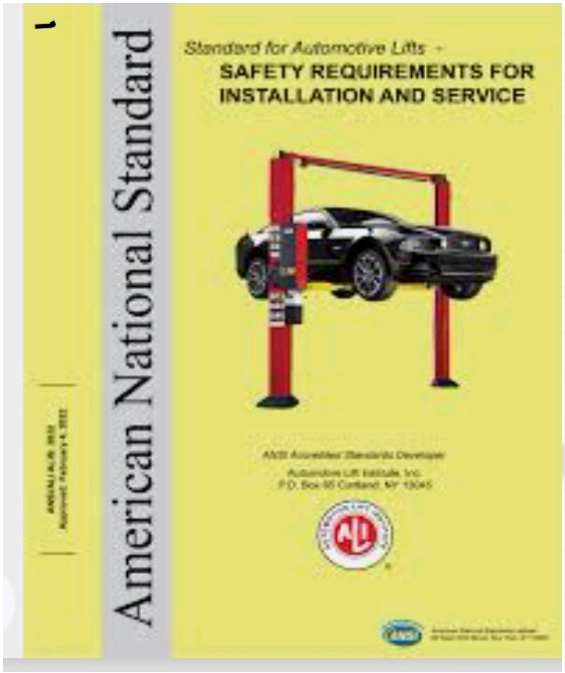
Best Management Practice: A practice that is recognized to be effective and practical and that sets the bar for adequate implementation of a general requirement. Normally derived from a consensus Standard.

Definitions, continued

Consensus Standard: Technical standards (test methods, sampling procedures, environmental management system) that are developed to ensure a standardized approach to processes that impact quality, safety, or technical requirements.

Note: When a consensus standard is referenced by a regulation, it becomes a legal requirement instead of a Best Management Practice.

Consensus Standard Example : ANSI Standards



Example of Consensus Standards Referenced by Regulation

- Consensus Standards referenced by OSHA. where are they?

  1. Embedded in OSHA Standards: E.g. Compressed Gas Association Pamphlet 1965 Safe Handling of Compressed Gases in 29 CFR 1910.101 Compressed Gases General Requirements

  2. All referenced standards will ALSO be listed in 29 CFR 1910.6 Incorporation by Reference

     - ANSI Z 87, 2010

Consensus Standard Inserted in OSHA 1910.133 Eye and Face Protection

(b) ***Criteria for protective eye and face protection.***

(1) Protective eye and face protection devices must comply with any of the following consensus standards:

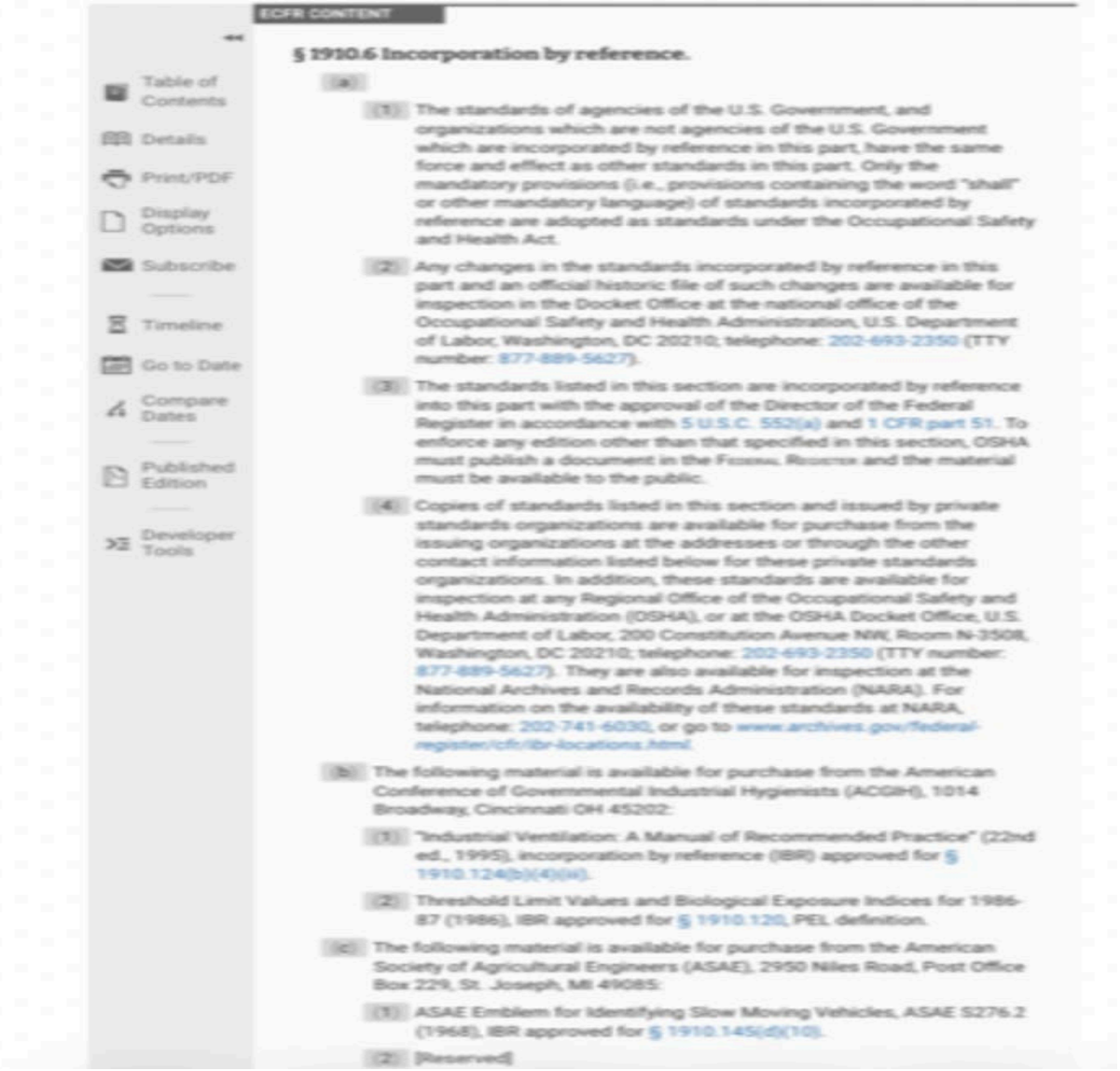
(i) ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1910.6;

(ii) ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1910.6; or

(iii) ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, incorporated by reference in § 1910.6;

(2) Protective eye and face protection devices that the employer demonstrates are at least as effective as protective eye and face protection devices that are constructed in accordance with one of the above consensus standards will be deemed to be in compliance with the requirements of this section.

OSHA 29 CFR 1910.6



ANSI Standards Listed by Reference

- ANSI A14.2-56 Safety Code for Portable Metal Ladders
- Compressed Gas Pamphlet
- phlet

Resources

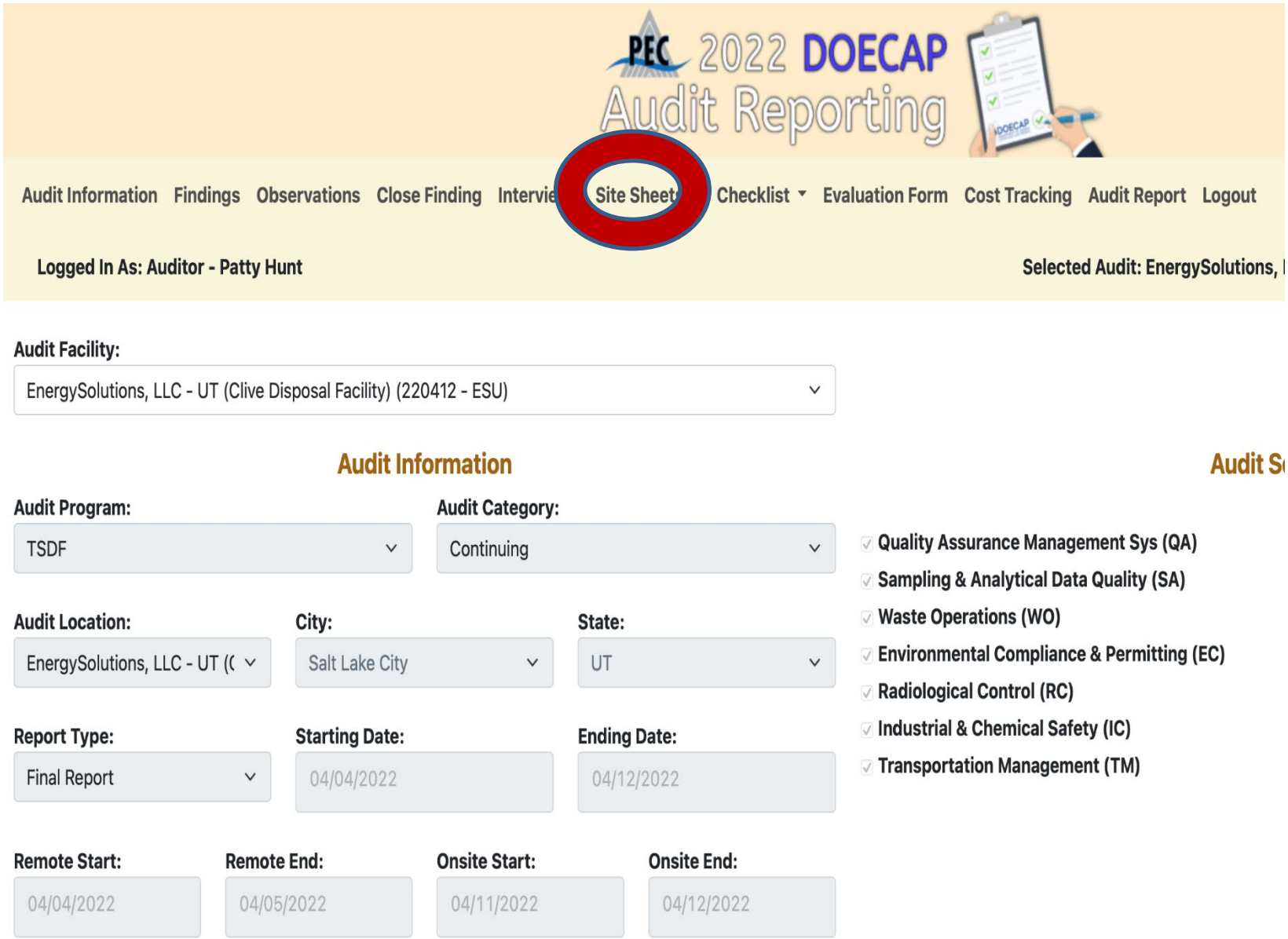
Access to Internet DOECAP Resources:

DOECAP Audit Report Site:

https://doecapauditreports.projectenhancement.com/pages/AuditInfo.aspx

1. Site Information Sheet
    1. Look for Permits, special requirements

2. Last Year's Checklist
    1. Special focus points
    2. Procedure names and revisions


PEC 2022 DOECAP
Audit Reporting
Audit Information
Findings
Observations
Close Finding
Intervie
Site Sheet
Checklist
Evaluation Form
Cost Tracking
Audit Report
Logout
Logged In As: Auditor - Patty Hunt
Selected Audit: EnergySolutions,
Audit Facility:
EnergySolutions, LLC - UT (Clive Disposal Facility) (220412 - ESU)
Audit Information
Audit S
Audit Program:
TSDF
Audit Category:
Continuing
Audit Location:
EnergySolutions, LLC - UT ((
City:
Salt Lake City
State:
UT
Report Type:
Final Report
Starting Date:
04/04/2022
Ending Date:
04/12/2022
Remote Start:
04/04/2022
Remote End:
04/05/2022
Onsite Start:
04/11/2022
Onsite End:
04/12/2022
Quality Assurance Management Sys (QA)
Sampling & Analytical Data Quality (SA)
Waste Operations (WO)
Environmental Compliance & Permitting (EC)
Radiological Control (RC)
Industrial & Chemical Safety (IC)
Transportation Management (TM)

29 CFR 1910.178 | Powered Industrial Truck

Date or Version	*Last Reviewed*	*Were Changes Made Within the last 12 months?*
ES-SH-PR-608	1/18/2018	No

29 CFR 1910.147(c)(1) | Lockout/Tagout

Date or Version	*Last Reviewed*	*Were Changes Made Since the Previous DOECAP Audit?*
ES-SH-PR-110, Hazardous Energy Control (Lockout/T	10/1/2020	No

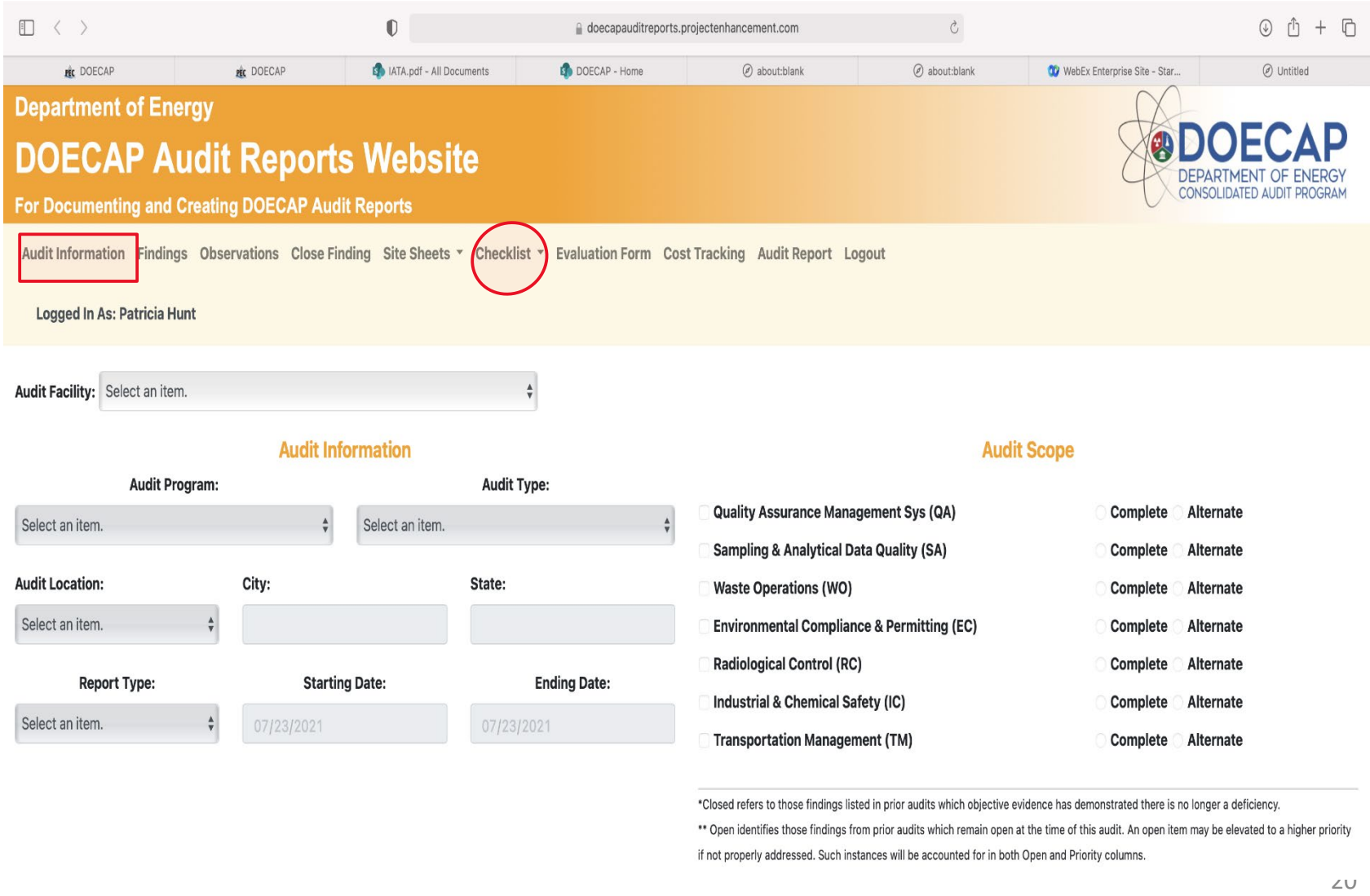
29 CFR 1910.146(c) | Confined Space

Date or Version	*Last Reviewed*	*Were Changes Made Since the Previous DOECAP Audit?*
ES-SH-PR-107, Confined Spaces	11/19/2018	No

29 CFR 1910.120 | Hazard Communication Plan

Date or Version	*Last Reviewed*	*Were Changes Made Since the Previous DOECAP Audit?*
ES-SH-PR-303, Hazard Communication	11/1/2018	No

DOECAP AUDIT REPORTS WEBSITE



Existing Resource Review

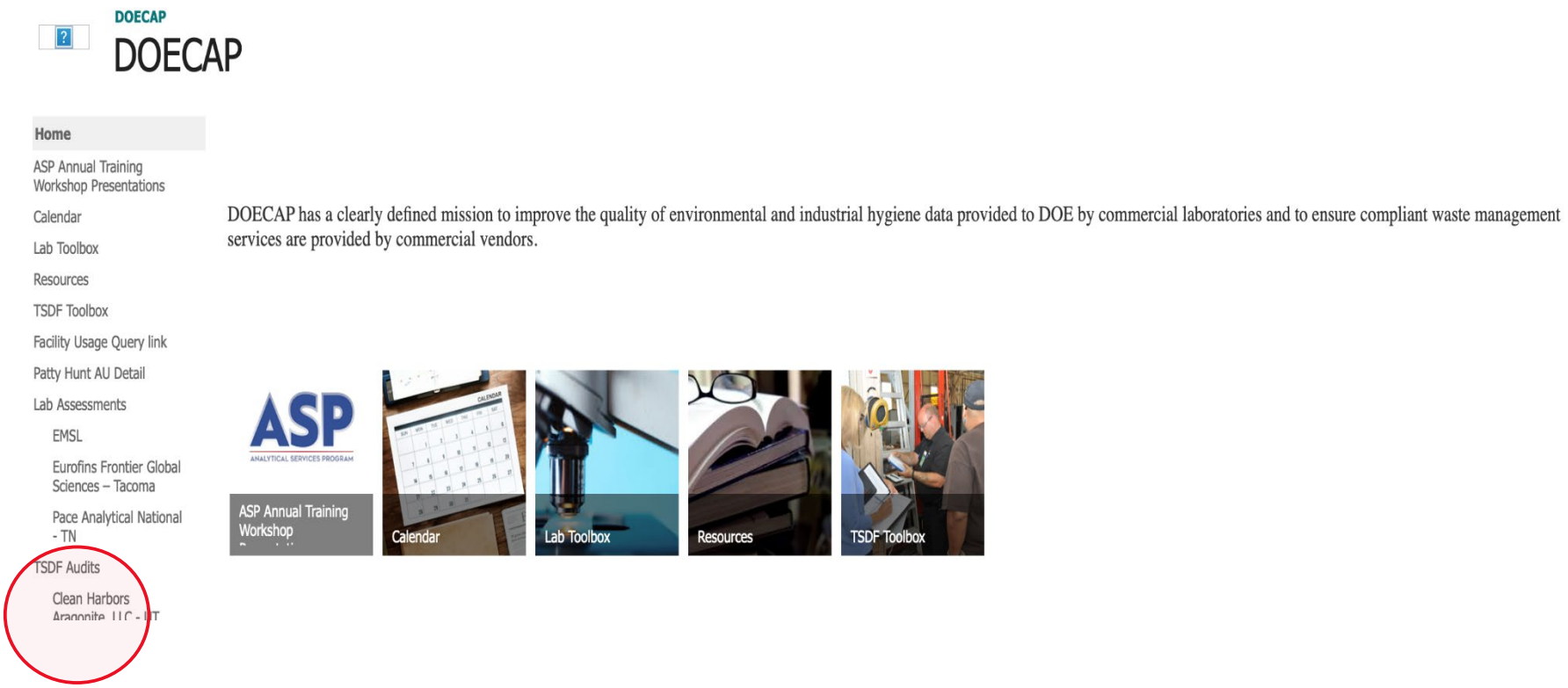
Project Enhancement DOECAP SharePoint Site :
https://projectenhancementcorp.sharepoint.com/sites/projects/AU21/DOECAP/SitePages/Home.aspx

1. Previous Year's Audit Report
    1. Summary, Page 3
    2. Findings and Observations details

2. Previous Year's Audit Materials Folder
    1. List of Site Procedures

3. Current Year Audit Materials Folder

Project Enhancement SharePoint Site



AUDIT SCOPE

As with onsite audits, the goal of a remote audit is to assess the TSDF's compliance, operational capabilities, and to confirm competency in the performance of contractual duties and tasks by using technology to review audited facility information, communicate with staff, observe activities and facilitate the audit process.

This audit covered a review of management systems and operational activities that need to be considered by each DOE site potentially utilizing the facility. The following areas were reviewed during this audit:

- Quality Assurance Management Systems (QA)
- Sampling and Analytical Data Quality (SA)
- Waste Operations (WO)
- Environmental Compliance and Permitting (EC)
- Radiological Control (RC)
- Industrial and Chemical Safety (IC)
- Transportation Management (TM)

Table 1 - Findings and Observations

Area of Concentration	Priority I	Priority II	Observations	Closed*	Open**
QA	0	0	0	0	0
SA	0	0	0	0	0
WO	0	0	0	0	0
EC	0	1	1	0	0
RC	0	0	0	0	0
IC	0	2	1	0	0
TM	0	0	0	1	0
Totals:	**0**	**3**	**2**	**1**	**0**

* Closed refers to those findings listed in prior audits which objective evidence has demonstrated there is no longer a deficiency.

** Open identifies those findings from prior audits which remain open at the time of this audit. An open item may be elevated to a higher priority if not properly addressed. Such instances will be accounted for in both Open and Priority columns.

Part I - Finding - Completed by DOECAP Auditor

Rating: Priority II	**Concentration: EC**
Finding Number: EC-190516-01	**Facility: [redacted] Disposal Facility)**
Reference Standard: UAC R315-264.14(c)RCRA Permit Attachment II-2 Paragraph 4	**Auditor: Martin, Paul (EC)**

Requirement Stated/Criteria/Citation:

"Danger - Unauthorized Personnel Keep Out", shall be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. Signs must be legible from a distance of at least 25 feet.

Finding:

Some security signs outside the mixed waste storage pad were faded to the point that they are not legible from 25 feet as required by regulations and RCRA permit.

Auditor Comments:

The "Danger" warning on "Danger - Unauthorized Personnel Keep Out" was extremely faded on some signs on the fence outside the mixed waste storage pad.

Part II - Corrective Action Plan - Completed by the Facility

Immediate Corrective Action Taken:

Identified signs were replaced. In addition, the rest of the signs along the MW fence line were inspected and replaced as needed. A total of 7 signs were replaced.

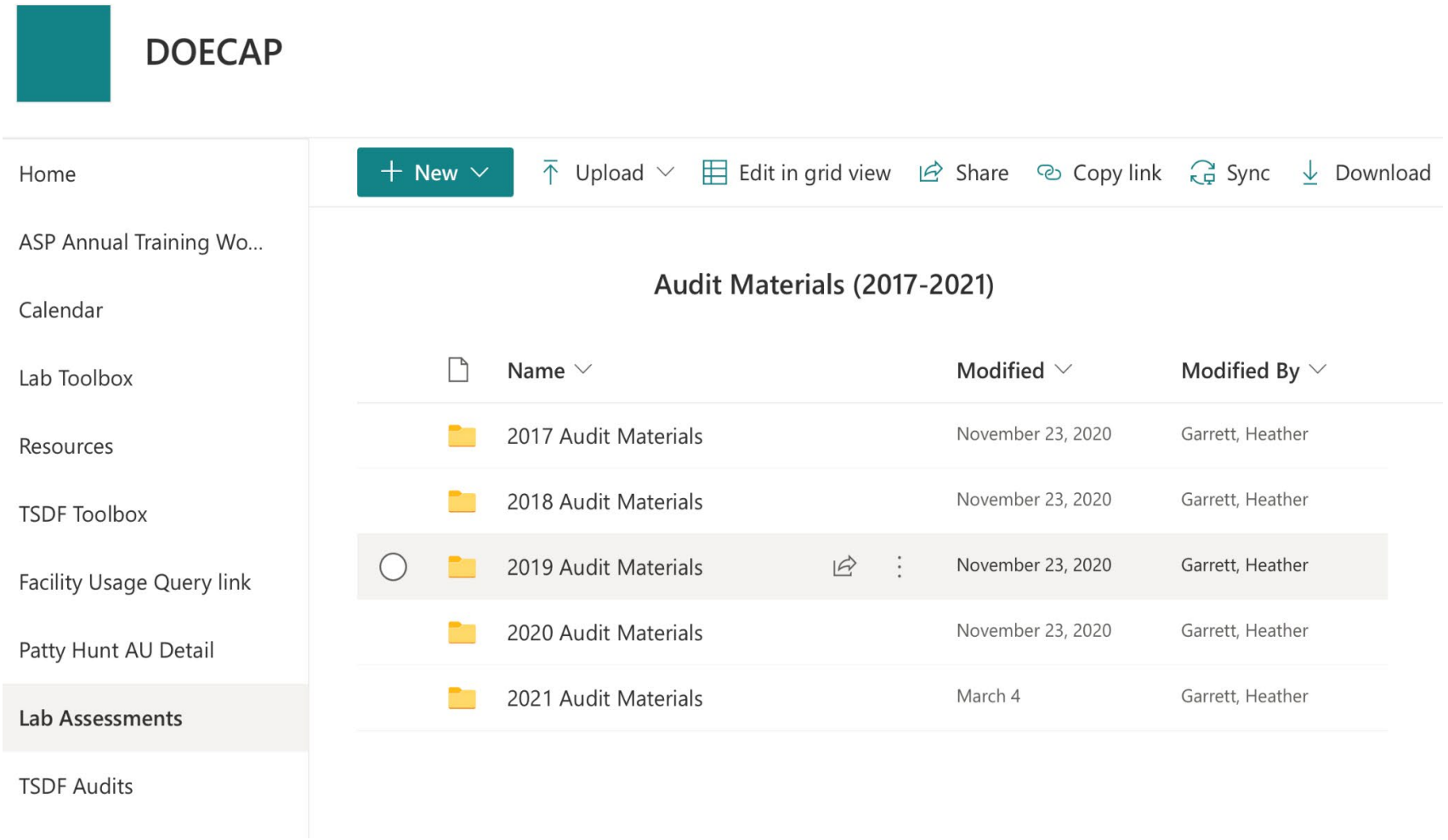
Root Cause Analysis to Evaluate How and Why the Finding Occurred:

A similar issue had been previously identified by site QA during a Management Field Observation on March 4, 2019, and communicated to site management. At that time, multiple signs had been replaced and the site's supply of new signs had been exhausted. New signs had been ordered but had not been installed. During fact finding, site inspectors responsible for inspecting the signs were questioned and all communicated that although they felt the signs were not in great shape, they also felt they were legible from 25 feet as required by the RCRA Permit Site Inspection Plan.

Corrective Actions(s) to Prevent Recurrence:

Condition Report [redacted] was written to document this issue and track corrective actions. In addition to replacing the signs identified during the DOECAP audit, a list of qualified inspectors was obtained and communication was sent out to all employees qualified as Mixed Waste Inspectors to reinforce that subjective items (such as the condition and legibility of signage) should be identified and corrected well before the condition gets such that compliance to governing requirements is questionable.

SharePoint Site Audit Materials



Creating a Document Request List

The Document request list consists material related to the functional area Three categories :

- procedures
- completed forms consistent with procedures
- Photographs of

Limitations of the Remote Audit

Problem: The audit is limited to Information that the facility has uploaded to the SharePoint Site

So, focus for Remote Audits BY NECESSITY is limited –

Document Review Vs Boots on the Ground

Solution: YOU !!! The quality of uploaded information is up to YOU!!!!!

Getting Started

1. Up to two weeks before the audit: Review the available information on DOECAP sites:

    1. The DOECAP SHAREPOINT SITE will be populated with information for the upcoming audit
    2. The Facility has already answered the questions on the Checklist for your functional area

Auditor's Checklist

Section	Sub Section	LOI Description	Frequency Identifier	Prior Site Response (Read Only)	Current Site Response	Prior AuditorComments (Read Only)	Current Auditor Comments
18.1.1 (a) Basic Questions About The Material	18.1.1 (a)	Do materials (including samples) shipped from or received by the facility as hazardous materials meet the definition in 49 CFR 171.8, and is the facility registered with DOT? 49 CFR 171.8 and 49 CFR 107.608	R	Materials shipped and received at the ORSC meet the definition of Hazard Class 7, Radioactive Materials. All materials arriving at the ORSC must meet the requirements of procedure USG-ORSC-WAG. UniTech Services Group is registered with the DOT. Procedure USG-ORSC-WAG and the UniTech DOT Hazardous Materials Certificate have been uploaded to Sharepoint.	All permits are current	Reviewed the Registration- it is good until 2021	Reviewed the registration for DOT certificate of registration. Was renewed in 2021 and expires June 30. 2024. There is also a Tennessee Radioactive Waste License for delivery of radioactive materials T-TN-067-I2 , expiration date is 12/31/2021 Unitech is also registered with the Alliane for Uniform Hazmat Transportation procedures under USDOT consensus # 283376, expiration date June 30, 2021. This registration is for Highway Motor Carriers . Ask the question- how does this registration apply to Unitech ORSC in Oak Ridge Tennessee? Due dates for registration are tracked by Windows calendar Is Unitech the motor carrier for rad wastes coming in or out of Oak Ridge? No Answer Unitech ORSC does not perform any carrier functions.
18.1.1 (b) Basic Questions About The Material	18.1.1 (b)	Does the facility report outbound shipments of waste through an automated transportation management system? DOE Order 460.2A, Section 4.a(2)(a)	R	The ORSC does not report outboard shipments of waste through an automated waste transportation management system as the facility does not currently process DOE hazardous or nonhazardous waste.	No changes to program.	There is no requirement to use an automated waste transportation management system for this facility	no automated transportation management requirement
18.1.1 (c) Basic Questions About The Material	18.1.1 (c)	Are any shipments made by or on behalf of the facility done under an on-site transportation plan? NQA-1; DOE O 460.1C, Section 4.d	R	All required shipments requiring a transportation safety plan made by the ORSC are in accordance with UniTech procedure OP-041, Transportation Security Plan. Procedure UniTech OP-041, Transportation Security Plan has been uploaded to Sharepoint.	No changes to program.	Reviewed transportation Safety Plan- it is really a Security Plan, as this facility is not required to have a transportation security plan for the types of shipments that go out.	have there been any changes to the Transportation Security Plan since the last audit? No Reviewed the Transportation Security Plan OP-041, Rev. 2, dated 2/3/2015. Finding This Plan references the March 25, 2003 issue for 49 CFR part 172 Subpart I Security Plans. This section of the regulation was updated ob March 9, 2010. Specifically, the applicability section 172.802 (b) Applicability has significant changes which render the reference and the applicability statements in section 7 of the Procedure obsolete. These three requirements are not listed in the 2010 version. Section 7.0 Risk Assessment states that 49 CFR part 172.800(b) identifies seven criteria that may require a company to develop and implement a Transportation Security Plan. Unitech Services Group, Inc. (Unitech) qualifies under three cf the of the seven sub item criteria: (4) bulk hazardous material shipments, (5) non-bulk hazardous materials shipments exceeding 5000 pounds, and (7) Placarded Hazmat Shipments The 2010 updated version has been revised. The subsections referenced in Section 7.0 of the Procedure have been removed. There are now 16 subsections. The subsections that could apply: I15) International Atomic Energy Agency Code of Conduct , Category 1 and 2 materials, Nuclear Regulatory Commission Category 1 and 2 radioactive materials as listed in Table I ,appendix A to 10 CFR part 37, and Highway Route Controlled quantities as defined in 49 CFR 173.403. The facility seems to be aware, based on comments in last years checklist, that the requirements from 2003 are not in 172.800 (b) and that technically the facility is not required to have a transportation security plan.

Auditor: WHAT TO DO?

Finding very little information posted on DOECAP website?

Gather Information from:

- The other functional areas, previous year's audit
- Every permit or license from local regulatory authorities
- Company's website

Generate your own list of requests, based on the information gathered and checklist questions and send it off to Senior Analyst and Audit Support:

Donna Joy or Hannah Hid

What's on Your List?

- Chemicals in use/storage
- Industrial equipment
- Programs/Procedures
- Records/outputs
- And Photographs!!!

Chemical Hazards

Industrial Hazards

Programs/Procedures

What the auditor will determine:

- Procedure references are correct
- Procedure is implemented
- Training requirements are listed and staff training is current

Example: The Procedure References are Correct

Reference section of a Scaffold Safety Procedure

The procedure is applicable to all employees and contractors performing activities at the facility.

2.0 REFERENCES

2.1 29 Code of Federal Regulations (CFR) 1926, "Subpart L – Scaffolds."

2.2 29 CFR 1910.28, "Safety Requirements for Scaffolding."

2.3 29 CFR 1910.29, "Manually Propelled Mobile Ladder Stands and Scaffolds (Towers)."

2.4 EWOC-QA-003, "Quality Assurance Records."

3.0 GENERAL REQUIREMENTS

3.1 Definitions

3.1.1 Competent Person

One who is capable of identifying existing hazards and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees and who has authorization to take prompt corrective action to eliminate them

Change in the OSHA Standard

November 2016 29 CFR Subpart D- Walking Working Surfaces was updated!

The references 1910.28 and 1910.29 were removed!

Example: The Procedure is Implemented

Job Safety Analysis (JSA) Procedure Excerpt

JSA Process

A JSA consists of:

1. Job Physical Requirements
2. Job Environmental Conditions
3. Personal Protective Equipment required
4. Sequence of Basic Job Steps
5. Potential Accident or Hazards associated with each step
6. Safe Job Practice for each step
7. A unique number identifying the JSA. Each JSA will be numbered as follows:
   Year, e.g. 2020
   JSA
   Next consecutive available number on the JSA log.
   The JSA number shall look like – JSA-2020-001.
   Maintain log electronically.

A Completed JSA:

Job Safety Analysis Worksheet

Number: JSA-2020-002	Task: **Cutting and Sizing** Effective Date: 7/20/2020 # of Pages 1 of 2 Department: Operations/Compliance

1. Equipment Operated: Diamond Wire Saw, Thermal Torches, Plasma Cutter, Welders

2. Environmental Conditions:

☒ Inside ☒ Outside ☒ Cold ☒ Heat ☐ Wet ☒ Dust ☐ Vapors/Mist
☒ Noise ☐ Vibration ☐ Other _____

3. Primary Job Functions & Position:

☒ Lifting ☒ Grasping ☐ Pushing ☐ Sitting ☒ Reaching ☒ Bending
☒ Kneeling ☒ Standing ☐ Pulling ☒ Squatting ☐ Other _____

4. Physical Demands: Continuously (C) 67-100% Frequently (F) 34-66%
Occasionally (O) 1-33% Not Applicable (N) 0%

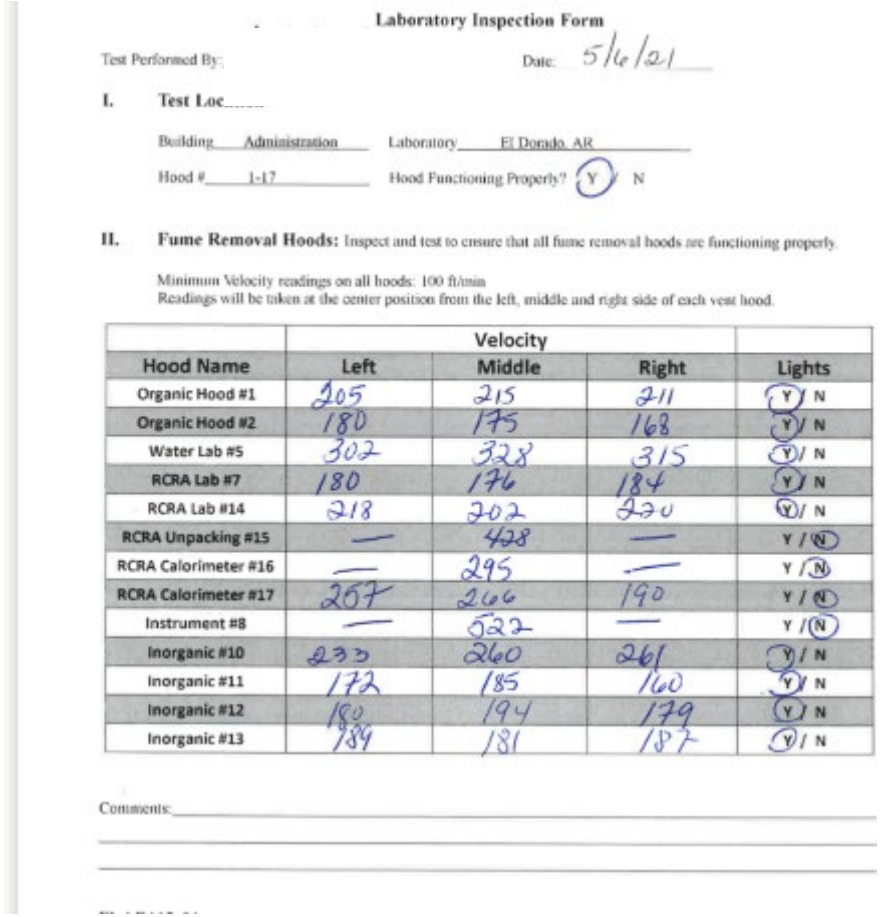
Standing O Walking O Sitting N Pushing N
Pulling N Climbing O Stooping O Bending _F___
Kneeling O Reaching O Carrying 20 lbs. 50 ft distance)

5. Potential Hazards:	**Controlled By:**			
☒ Impact	☒ PPE	☐ Procedure	☒ Training	☐ Guards
☒ Caught on or between	☐ PPE	☐ Procedure	☒ Training	☐ Guards
☒ Fall or Slip	☐ PPE	☐ Procedure	☒ Training	☐ Guards
☒ Over Exertion	☐ PPE	☐ Procedure	☒ Training	☐ Guards
☒ Burns	☒ PPE	☐ Procedure	☒ Training	☐ Guards
☒ Respiratory	☒ PPE	☐ Procedure	☒ Training	☐ Guards
☒ Heat Stress	☒ PPE	☐ Procedure	☒ Training	☐ Guards
☒ Eyes	☒ PPE	☐ Procedure	☒ Training	☐ Guards

Example Records/Outputs

Completed

- Hot work permits
- Confined Space Permits
- Inspections
- Maintenance



Laboratory Inspection Form

Test Performed By: Date: 5/6/21

I. **Test Loc**

Building Administration Laboratory El Dorado, AR

Hood # 1-17 Hood Functioning Properly? (Y) / N

II. **Fume Removal Hoods:** Inspect and test to ensure that all fume removal hoods are functioning properly.

Minimum Velocity readings on all hoods: 100 ft/min
Readings will be taken at the center position from the left, middle and right side of each vent hood.

	Velocity			
Hood Name	Left	Middle	Right	Lights
Organic Hood #1	205	215	211	(Y) / N
Organic Hood #2	180	175	168	(Y) / N
Water Lab #5	302	328	315	(Y) / N
RCRA Lab #7	180	176	184	(Y) / N
RCRA Lab #14	218	202	220	(Y) / N
RCRA Unpacking #15	—	428	—	Y / (N)
RCRA Calorimeter #16	—	295	—	Y / (N)
RCRA Calorimeter #17	267	266	190	Y / (N)
Instrument #8	—	522	—	Y / (N)
Inorganic #10	233	260	261	(Y) / N
Inorganic #11	172	185	160	(Y) / N
Inorganic #12	180	194	179	(Y) / N
Inorganic #13	184	181	187	(Y) / N

Comments:

Training Records

Training Records that the lucky auditor requests.

- For the procedures reviewed, ask for examples of staff training records- Risk Based
- If you have a completed confined space permit- ask for the training records for those listed
- Remember to ask about staff turnover impact on training

Final Thoughts

- Preparation Time is key
- Get assistance early for requests
- Time is short! You have a 30-minute interview for a two day audit
- Use the checklist to make your interview flow
- Watch your tone of voice and attitude

AND KNOW THIS

Lucky auditors put in a lot of preparation to make a successful and valuable audit for DOECAP and for the Facility!!!!