



The Value of Re-performing Detailed Hazards Analyses for Existing Work

Rebecca Raven
Waste and Fuels Management Project
CH2M HILL Plateau Remediation Company

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CH2M HILL Plateau Remediation Company

CH2M HILL's mission at Hanford is to decommission and remediate the Central Plateau, 100K Area, 400 Area, and site groundwater.

Areas of focus include:

- 100K Area remediation
- Plutonium Finishing Plant (PFP) closure
- Groundwater/vadose zone remediation project
- Facility, waste site, and canyon remediation
- Treatment and disposal of waste
- Fast Flux Test Facility
- Sludge Treatment Project



It began with a questioning attitude

- Mission was to repack and vent waste drums.
- Personnel employed a questioning attitude about the process.
- Issues raised were not communicated effectively.
- Result was a full blown review of the hazard analysis.

The onion that was peeled before us

- Drum venting and processing work steps revised multiple times.
- Hazard analysis had not been revised.
- Hazards were down played and perceived as onerous.
- Waste stream data had not been reviewed adequately.
- Complacency to routine hazards.
- Untested assumptions were presented as fact.

Return to Fundamentals

- Utilized employee feedback on what the actual and perceived hazards were.
- Reviewed the process for venting and repackaging drums.
- Reviewed controls that were currently in place.
- Reviewed the data we had on the waste stream.
- Needed greater detail with the job hazard analysis.

What was found

- Gaps found in the job hazard analysis.
- Procedures did not include required job hazard analysis input.
- Waste constituents had not been fully reviewed.
- There were inconsistencies with the PPE requirements.

What did we do

- Used a comprehensive team made up of operations, engineering, safety and industrial hygiene, and radiological control.
- Conducted new enhanced work planning session.
- Revised the job hazard analysis in detail.
- Expectation set that procedures are worked step by step.

What did we do

- Reviewed the waste description and all chemicals of concern for that waste.
- Reviewed the PPE requirements and identified the proper protection for the hazard.
- Used the manufacturer of the PPE as guidance.
- Involved the personnel in the process for buy in/ownership of the process.

What did we do

- Reviewed all past industrial hygiene data to ensure no past exposures.
- Revised the industrial hygiene sampling plan.
- Solicited feedback from personnel on new sample locations.
- Reviewed sample plans with personnel before approval.

What did we do

- Conducted mock up and verification exercises to make sure work fit the words.
- Trained personnel to the new work documents.
- Coached personnel on communication of hazards and expectations.

How did we implement

- Procedures and process documents had to meet management expectations.
- Procedures and process documents had to meet personnel expectations.
- Ensured that everyone had opportunity for feedback.
- Entire package was presented to all staff before moving forward.

Why is this important

- Feedback is an important segment in the ISMS loop.
- Reviewing procedures periodically ensures compliance gaps are found.
- Personnel involvement will create ownership.
- Proper communication reduces potential for issues.