

EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008

10 CFR 851 Enforcement Lesson Learned

Kathy McCarty

HS40

Prime Focus – Contractor Assessment and Self-correction

- Most non-compliances are not pursued
- For those more significant – a reduction in potential fine (up to 50%) is given for self identified and reported issues
- Now reviewing CARES data on injuries in addition to ORPS data

Performing integrated reviews (SRS was second) to look at contractor assurance programs

Average 7-8 enforcement actions per year.

Average and total civil penalties are trending up

- # of SL-1 violations increasing
- increased use of escalation option (for recurring issues)

Total number of violations fairly static, but penalties increasing

The number of worker safety and health NTS reports is significantly less than what was expected.

60% of issues into NTS are self identified -- other due to events or external assessment. Goal is to increase the percentage.

For Idaho event, penalty (\$250,000) was enforced through a contract fee reduction.

RP Subgroup

Pu-241 Task Team Report

Mark Ledoux, Energy Solutions (Filling in for Ted Glitz)

Provided summary of meetings and contacts.

Working group has prepared a DOE 5400.5 exemption template

Technical basis is 95% complete on the CD. Each site just needs to fine tune for their project. CD is available with the template.

Ken Crase commented that DOE probably cannot issue the exemption template. Recommended, and Michael Gilles supported that, EFCOG issue the template to each site and encourage submittal to HQ of Standard exemption requests to treat Pu-241 as being part of group 4, rather than as an alpha emitter.

EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008

Only site-specific financial data needs to be added to the template. Good discussion about how the team landed on the “site specific exemption” as the right path forward. The subgroup agreed to issue a letter recommending each site follow guidance provided and submit an exemption request. Recommended that a question for the next meeting is to get an update on 5400.5 progress and decide if an exemption for other “hard to detect” radionuclides is needed. At this point the team’s work is complete once the EFCOG process is complete.

Note: Mark will forward electronic copy of information given out to Stafford for possible attachment to minutes. **If attachment is available update sentence to reference it.**

EFCOG Neutron Quality Factor Task Team Update 2

Ken Crase

Task team is ready to send Stafford a report by December giving guidance on what to recommend to DOE that they put in a Technical Guidance. Also, Ken recommended that EFCOG retask their team with developing guidance that EFCOG will issue to help each site evaluate their neutron spectra to verify that their HP (10) is conservative with respect to E (Effective Dose).

Request made to look at High Energy spectra for completeness up to 14 MeV, Ken agreed that the team could do that.

Ken estimates the team will need about 6 months before issuing the guidance on how to evaluate site spectra.

Ken will give an update at the next meeting and plan to complete the guidance document by that time.

Moved up Kathy Shingleton’s presentation on Neutron Characterization for LLNL.

Attach and reference presentation.

Bottom line (ROSPEC measurements support Hp(10) concentration relative to E and will increase about 22% under new 835.)

Ken asked for a copy; should be useful in preparing their guidance for other sites.

Ken further suggested presentation at the next meeting on how they will communicate the changes to the workers. Ken commented that each site may need to recalculate their MDA for neutron doses.

EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008

Tony Umek recommended a USQ evaluation of dose change impacts to formally document the evaluation. Sites should also consider any potential ALARA issues raised by the increased dose.

At LLNL they do not plan to communicate about the changes in dose terminology to the general work force. They will use general dose terms to avoid confusing the workers. Recommend that Zobel come to next meeting to discuss DOELAP plans for neutron changes in 10 CFR 835.

Recent Intakes

Paul Hoover and Luiz Bertelli

Chemistry and Metallurgy Research Lab

1. Needed to mount a sample in epoxy trying to pry it out, stuck screw driver into finger,
2. TA 55 (one month later) put on extra gloves and nicked hand
3. TA 55 Size reducing stainless for analysis—using a nibbler, wearing 4 pairs of gloves, leather on outer, ends up with a sliver in thumb

Multiple Chelations for 1st case

7.4 rem estimate avoided 17 rem thru chelations

Last case happened with two observes watching, judging effectiveness of corrective actions from 1st case and 2nd case.

DOE expectation now is to eliminate hands on machining, this will be very expensive.

Follow-up discussion regarding waste repackaging and related puncture hazards.

Ken talked about DOE Order 5400.5 but only to say – we are making good progress.

Because they are close to an actual draft, the topic can no longer be discussed. This is required to allow a chance of success in moving forward with the revision. He was able to say the new revision will be more clear and organized. All changes have to be justified. Once completed, the new order will be available for comment through RevCom.

Packing and Transportation Group Discussion

EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008

Sandia created a special group (Nuclear material handling) to deal with the new packaging and transportation requirements. This is because of the many cross-cutting issues and especially the need to repackage the material if you are going to keep it in storage. DOE's new manual is a response to DNFSB push to expedite repackaging. No funding is provided and Sandia anticipates that they will not implement without funding.

Contract Transition – Group Discussion

Make sure your subject matter experts are involved in reviewing issues or concerns raised before they are documented in the due diligence review report.

Recovering from inaccurate issues being reported can be very difficult. SRS is still dealing with this concern. Another site explained that they had demanded that RadCon be involved in all walkdowns and issue discussions. A daily debrief can help all involved understand and minimize confusion.

Lengthy discussion followed about how organizations interact and cooperate. Much of the discussion revolved around SRS and other ongoing transitions.

Rad Protection Training Pipeline

Jerry Hiatt provided a presentation on industry efforts to establish new and standardized training programs for radiological control technicians. Good progress is being made, and Michael Gilles provided specific updates on Aiken Tech.

An exciting aspect of the program is the opportunity for the students to work as an intern. An added benefit is for the senior technicians at the facilities to interact with the energetic and excited youngsters.

Michael pointed out that he is still anxious about filling the need for degreed HPs. Further discussion supported Michael's concern. Already the wages being paid by the power plants far exceeds what DOE is able or willing to pay.

Bartlett offered that they can help with short term needs for technicians or CHPs.

Jerry continued discussing ongoing INPO efforts to standardize not only training programs, but also procedures. This improves the ability of personnel to move from site to site.

EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008

Open discussion on EEOICPA and Lessons Learned

It is still a lot of work to research exposure histories. Two key problems:

1. People who do not get compensated may go to their congressman for help and often they help
2. Special cohorts may be developed, that often make little sense, and that generates new sources of requests. This extra work is meshed with ongoing budget cuts.

Increasingly, special targeted requests are being received (certain radionuclide for a certain time period). These investigations are very time consuming and frustrating. DOE may not well understand the cost and effort involved in this new wave of activity.

One recommendation is to require all requests for information to be formally transmitted.

Tony Umek cautioned that the new DOE order on human studies creates liabilities for the release of information and how it is used. Even if DOE directs the release of information the contractor is still liable.

Tony brought up a request from the environmental subgroup asking for support on addressing the moratorium on the release of metals. Ken suggested that the new 5400.5 may provide some help. Ken was asked to recommend people who might help them.

Tungsten Gloves

Mike Matheny provided an update on use of Tungsten gloves.

- Thin gloves are available up to size 9
- Provide 50% reduction to beta dose rates
- Also gives good reduction for low energy x rays
- Also provided information on alternate glove box gloves made by Piercan

Plastic Suit Use and Options

Mike Matheny discussed a presentation prepared by Ed Kvartek. The presentation prompted a discussion regarding the use of plastic suits for contamination control during work involving very high contamination levels, even when intake potentials would not dictate such a high level of protection. Heat stress protection was also discussed.

**EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008**



Acrobat Document

Risk Ranking LLNL's RGD Inventory

The purpose was to determine graded applicability of DOE O 420.2b.

The selected model is simple and consistent with the two factors considered.

1. RGD primary beam output (rad in an hour@1m)
2. RGD/facility complexity (as specified in the IG)

Other options were considered, but it was determined that more complex approaches were harder to defend.

Doses were based on actual dose a person could receive over 1 hour (not the dose rate during a pulse).

In the end, DOE rejected the proposal. A graded approach was not approved even though DOE asked for one.

Peter O'Connell Conference Call

Michael Gilles reported Pu-241 guidance ready to go to EFCOG for distribution to sites. The neutron dosimetry approach was about a month away from sending technical guidance to DOE. Pete agreed that they would put out a Technical position paper based on the guidance.

We reviewed the DOE and RevCom home pages.

The exemption request from Hanford for the hard to detect nuclides has been approved and is listed on the homepage.

Update on Standards

RevCom process

- Need to update a Standard (notice issued)
- Draft developed and submitted to RevCom and DNFSB
- Posted for comments from site
- Some problems with comments being forwarded from DOE to the sites.
- HQ has 30 days to respond to comments.
- Changes shown as redline/strikeouts

EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008

- Pete described a rebuttal phase that they never got any comments on. He explained there is a 10 day concurrence plan with DOE's response to comments.
- All agreed they were not aware of the rebuttal phase and had never been informed
- Office is currently under the gun to reduce the number of documents. Will add Rad guidance documents as appendices to the overall Tritium Standard.
- Comment was made that no one had seen the Tritium Documents—probably because the Tritium Operating folks at the site did not involve RP. Handbook 1184, 1105, 1079 deal with tritium and Pete will accept comments by email even though closed in RevCom. Look under Handbook 1129 "Tritium Handling and Safe Storage, appendix E, F & G.)

Guide for *Good Practices for Plutonium Facilities* currently out for review (many were aware). Guide for *Good Practices for Uranium Facilities* is coming out soon.

The RadCon Standard is in the concurrence phase which ends 10/17. In the concurrence phase, 2 comments are being addressed.

Three more documents are being incorporated into the Rad Worker Training Manual as Appendices.

You can call Pete or send an email even after the comment period.

***Pete will provide an update on ORPs change to Stafford for distribution.

Discussion on National Sources Tracking Database regarding the need for including plutonium cans. Los Alamo stated that they were not including sources already reported in the classified database. No need to double report (Extra work and no benefit). Livermore agreed with this position.

Expect another memo to come out soon on Transaction Reporting for Category 1 & 2 sources.

Cruse asked Pete and Joel (he joined the call) for help in stopping the impending end of Oak Ridges' funding for making Cf-252 sources. Ken explained why Cf-252 is needed to support instrumentation and dosimetry programs. Ken provided Joel the contact at ORNL for the source production. Joel wanted to know if other agencies (DOD, NRC, NIST) are complaining about the impending change. Joel and Pete agreed to revive the issue with ISCORS (Interagency Steering Committee on Radiation Standards). Ken agreed to forward them more details as he found them.

EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008

Paul Hoover asked for guidance on how to report doses in REMS with different organs for ICRP 60. Pete recognized the need to get a new format issued and will talk to Derek Hagemeyer asking them to issue a standard format in time for sites to report 2008 doses.

Other Topics

Michael Gilles explained that the SRS ALARA center is broadening scope to include IH & Safety support.

Need rad representation on Nano technology task team. Asked Kathy Shingleton and Paul Hoover to consider participation from their sites and provide input to Stafford.

Michael provided input on SRS's recent experience with the OE assessment.

Paul is interested in bench marking and maybe standardizing on key performance indicators. Examples mentioned include:

Dose
Contamination Cases
Glove Failures/Breeches

Recommend that the topic be discussed at next meeting—how to standardized

Mentioned statistical evaluation of events (paper given at last HPS meeting), as a good way to compare yourself to yourself. But it does not provide a way to compare site to site.

Recommend that we begin by reviewing what each site uses as key indicators including lower tier measures. Stafford should send bench marking question and collect input. Then each site would discuss their indicators.

Jerry will provide INPO guidance (will send it to Stafford).

Also interest in talking at the next meeting about RWP/Access Control systems and Triennial Assessments.

Recommended for bench marking questions that the requestor agree to compile results in a summary report. Need to consider how the summary data will be made available and protected.

Expect next meeting in DC about March.

**EFCOG Environmental Safety & Health Working Group
Radiological Protection Subgroup
Fall 2008 Meeting Minutes
October 7 – 9, 2008**

Executive Session Notes:

Subgroups were reminded to post best practices on the website.

The nanotech task team was mentioned again as was the environmental task team on metals.

Please update organizational charts (of course we need some positions filled first).

Spring meeting looks like 3/9-3/12 in DC with the Fall Meeting in Hanford around 10/5

Remaining open issues:

Need volunteer for co-chair and secretary.

Need volunteer for nanotechnology (Kathy and Paul (maybe Scott Walker) took the lead)

Need volunteer for the collaboration with the environmental subgroup on free release of metals

Cruse Team to provide memo to Stafford, for EFCOG to send to DOE