CERCLA 5-Year Review Workshop
December 7, 2005
Notes

Note: The following notes capture the open discussion during the Dec. 7 public workshop:

Lessons Learned from 2000 Review

- Have one principal author
- Action items were not specific enough to guarantee desired outcomes
- Consolidated review was a good approach
- Action items included actions that could have gone into RODS (many were groundwater related) this was a good approach

2005 Review Scope

- Report will include timetables for action items
- RCRA past-practice units will also be included
- Ecology emphasis for groundwater in 5-yr review is on action items

Q: Why DOE this time, not EPA?
A:

- They are the responsible party
- They can do more internal review
- They will be the ones implementing action

Q: EPA does have to concur with protectiveness statements (or write their own). What happens if regulators are not in concurrence?
A: EPA hopes to be in concurrence by the time the draft comes out, but other things may come up and will get written in

Q: 400 Area included?
A: Not specifically because there's no CERCLA activity

Q: 1100 Area different? What do you do for a de-listed site?
A:

- Burial ground with asbestos has to be reviewed
- Still looking

Q: What about new information/discoveries?
A: Evaluation process, range of possible activities

Q: Horn Rapids landfill included? What will be used to assess protectiveness?
A: Last time, checked Institutional Controls (ICs) and cover depth (also, ICs are checked annually – review will look at those assessments)

Q: Cutoff date – what decision documents are in/out?
A: July 06
Suggestion: Send out list of decision documents included/screened out because of cutoff date (include RCRA units)

Groundwater
Review will say there have been mixed successes

Q: Are we meeting the RAOs?
A: Interim RODs do not have to be fully protective (what can you do at the time?), so protectiveness question will be open until risk assessments are done

300 Area U Plume
10 years since first ROD

Not attenuating at rate expected in the ROD, therefore need to do something more aggressive (have plan now for review by the regulators)

Including other contaminants? Yes
Monitoring for river seepage? Yes

Fluctuating water levels is an issue beyond just the 300 Area

100 N
Have failed to reduce Strontium 90 getting to the river (failed to meet RAO)

Test plans have been drafted to replace & turn off pump & treat (apatite sequestration) – will be submitted with TPA milestones

100 Area Chromium
"Mixed bag of success"

Data on invertebrates – will be part of risk assessment

Goal is water quality standards for aquatic organisms? For uranium, have no ambient standard but goal is DWS

Schedule for risk assessment? 100/300 Area report July 07 (TPA) – initiated Oct 06 (note RCC impacted re: funding)

Ecology emphasis for groundwater in 5-yr review is on action items

<u>200 Area Groundwater (esp. carbon tetrachloride)</u>
Done what was asked in last review, but much more to be done

200-UP-1 (U and Tc-99)
- Meeting RAOs for interim response
- Final ROD has not been done

New since last review:

1100 Area Groundwater

TCE plume and MNA actions may not be completed? Met goals & objectives, but may need official close out

Opportunity for independent review of DOE conclusions? Yes (probably not, but possible)

New standard for U and Tc based on new standards? (RAO set at 10x DWS)
- leave open whether additional work will be done
- will look at if there's risk to human health and environment, what is ultimate goal for groundwater cleanup

RODs
Risk assessments are underway – have not established milestone for final ROD

Final RODs for River Corridor will come

MTCA
MTCA assumes ICs will fail, has bias against engineered caps

MTCA uses "most sensitive population" to determine health protections

Ecology expects: action item – reference to risk assessment

NAS Rad Risk Estimates
Rads <u>are</u> a hazardous substance under MTCA and CERCLA

15 mrem dose is outside MTCA risk range – can't exceed 1/100,000 for MEI

NAS standard is for use in new risk assessments (but risk estimates haven't changed)

Risk Assessments
Issues re: risk assessments:

- integration
- assumptions re: long-term protectiveness
- evaluating & limiting uncertainty

Interim RODs have an inherent risk

Final baseline risk assessment still has to be done

Tend to disconnect groundwater from soils – don't have good picture of vadose zone contamination and impact on groundwater

How you set up the problem influences the results (e.g. geometric shapes) – may have different numbers for the same site

DOE is working toward integrating final approach in River Corridor

Just getting RODs in place on Central Plateau – working to integrate decisions with those already in place for groundwater

Interim RODs were based on Hanford past-practice strategy – included early actions, but not final cleanup -- cannot give absolute statement of protectiveness now because risk assessments aren't done

Lateral flow/fate & transport in the vadose zone
If lateral transport is not incorporated into risk assessments, how does it get into the review? Actual remedial design will look at these types of things (sometimes occurs after a ROD)

Note: lateral transport is probably more of an issue in the 200 Area where RODs have not been written yet (exception: 300 Area U – are looking at vadose zone/groundwater interface and lateral flow)

Flood and Climate Change
Have we adequately defined "protective"?

Institutional Controls (IC)
Commitment to continued evaluation of new technologies (part of ICs?) No, it is not part of IC's, beyond the review, remember that there are input points on the RODs

What about the regular TPA reviews?

USFWS is working on CCP EIS for public usage in the next 15 years – they want to be sure use of the Monument is safe

Cultural and Natural Resources
Characterizing risks to natural and tribal resources for the public to assure protectiveness – review include actions for reaching goals re: resource protection

We need to put funding into characterization so we know what's there (will be there in some places)

Public Involvement
Haven't defined the interested public

Need to make the info accessible and talk about items of concern

Two major items of interest

- 300 Area
- Monument use

Two ways to approach new requirements under MTCA

- have workshops regionally

What's the feedback loop from what we did today?

Next Steps
Write up today's discussion
Say, "here's what we're using" and "here's why we're NOT using something"

Clarify from list generated today what's NOT in 5-year review and how it's going to be addressed in some other forum

list of issues addressed in the review
list of issues that won't be in the review, but it will mention it
list of other items

Early emphasis on action items