DEPARTMENT OF ECOLOGY
State of Washington

Historical Perspective Inner Area Principles

Presented by John Price for
Hanford Advisory Board
February 2015

- Purpose:
  - For those of us with long tenure on Hanford issues, remind us what we've previously discussed or advised
  - For those of us who are new to Hanford issues, educate us about past discussions & advice
- Discussions:
  - There have been multiple public meetings about the approaches to be used in Central Plateau cleanup decisions
- Advice:
  - The Hanford Advisory Board has advice about most of the approaches to be discussed today

1992: The Future for Hanford: Uses and Cleanup

Summary of the Final Report of the Hanford Future Sites Uses Working Group

- Eight Open Houses in Richland, Pasco, Toppenish, Mattawa and Seattle, WA & Portland, Mission, and The Dalles, OR
  - Summary of written comments in Appendix H of the full report
- Central Plateau was 1 of 7 geographic areas
  - Establish "buffer zone" around "exclusive area"
  - Access to "buffer zone" and "exclusive area" restricted to properly trained, monitored personnel

1992 "exclusive area" = today's "Inner Area"

1999 Hanford Comprehensive Land Use Environmental Impact Statement (EIS)

- Formal public hearings in Portland, Richland, Mattawa, and Spokane
  - More than 200 detailed comments were given individual responses in the Comment Response Document.
- EIS Record of Decision statements related to current Principles:
  - Consolidate waste management into 20 square miles
  - "Deed restrictions or covenants for activities that potentially may extend more than 4.6 m (15 ft) below ground surface are expected for CERCLA remediation areas in the Central Plateau."

2001-2002 Exposure Scenarios Task Force

- Task Force, including HAB, looked at many (not all) of these same assumptions
- Two 2-day meetings attended by over 100
- Report, Appendix (~65 pg workshop notes) found at HAB "Key Board Products & Special Reports"
  - http://www.hanford.gov/files.cfm/HAB_TaskForceFinalReport.pdf
  - http://www.hanford.gov/files.cfm/HAB_TaskForceCompAppen.pdf
  - Resulted in Advice #132 and Tri-Party response

HAB Advice #132, Exposure Scenarios Task Force on the 200 Area

- 7 June 2002 Advice
  - Referred to previous effort, Future Site Uses Working Group
- 11 July 2002 Tri-Party response
  - Attached a "Risk Framework Description (Tri-Party Agreement)"
  - One of seven Attachment elements was that the "Core Zone" – now called "Inner Area" was that an Industrial land use scenario will set cleanup levels

2005 Hanford End States Vision

- DOE Policy 455.1, Use of Risk-Based End States
  - Two-day 200 Area workshop August 11-12, 2004
  - Workshop Feedback captured in report pg. 3.55
  - DOE/RL-2005-57 unavailable on-line*
- Central Plateau Cleanup Completion Strategy
  - DOE/RL-2009-81
  - HAB Advice #226

*A footnote (pg. 1) in *Hanford Site Cleanup Completion Framework*, DOE/RL/2009-10, state that the latter replaces the earlier report
http://www.hanford.gov/files.cfm/Comp_Framework_Jan_%201-23-13-lfm.pdf

Prior HAB Advice

Assumption	Advice #	Advice
Inner Area land use is industrial.	63A	"It is anticipated that the 200 Area will be used for waste management activities well into the future.
	132	The Board acknowledges that some waste will remain in the core zone when this cleanup effort is complete.
The agencies are in agreement that the footprint of the Inner Area is 10 mi^2.	*FSUWG* Report	Establish buffer zone in addition to the 9.4 square miles
	132	the core zone should be as small as possible and should not include contaminated areas outside the 200 Area fences.

Prior HAB Advice

Assumption	Advice #	Advice
BRA will use the default EPA industrial scenario to determine if there is a need for action	82	The Board recommends that a clear process for making decisions on remedial actions be identified in the implementation plan.
State requirements under Model Toxic Control Act (MTCA) Method C will be considered . . .		
. . . cleanup standards for chemicals will be based on MTCA Method C		

Prior HAB Advice

Assumption	Advice #	Advice
BRA will not include residential, intruder, or tribal scenarios.	132	For the waste management areas within the core zone, exposure scenarios should include a reasonable maximum exposure to a worker/day user, to possible Native American users, and to intruders.
BRA will be done on operable unit (OU)-by OU basis.	128	There is an extensive inventory of remediation needs that must be resolved on an integrated, consistent basis for all operable units . . . The Board advises that a comprehensive risk assessment, including quantitative analyses be developed to guide cleanup decisions. The Board advises the Agencies to establish an integrated plan and concept

Prior HAB Advice - Central Plateau Characterization

Assumption	Advice #	Advice
Similar site approach can be used with proper analysis and use of available information, data, and process knowledge.	82	[Background] The approach is to investigate a representative number of sites of each waste group to make a decision on the way to remediate those sites. [Advice] They appear to be a reasonable approach to streamline characterization needed prior to remedial decisions on 200 Area waste sites . . . Although the Board supports the concept of streamlining investigations, the Tri-Party agencies should clarify that information will need to be collected on a site-specific basis

Advice on Characterization (con't)

Assumption	Advice #	Advice
The observational approach can also be a valid strategy where RTD is appropriate.	226	In some cases it may be less costly to simply RTD the material in a burial ground than to spend money to fully characterize the site.
The regulatory agencies are willing to consider plug-in approach	177	The Board supports the reasonable application of the "Plug-in" approach. However, its application should be limited to waste sites where data clearly demonstrates a similarity between waste sites.
Post-ROD characterization is a valid approach but may result in interim action RODs.	227	The Board suggests that having enough characterization data prior to decisions is more appropriate than reliance on post-record of decision characterization.

Groundwater Point of Compliance

How Remedial Alternatives are Evaluated

Assumption	Advice #	Advice
DOE may also choose to evaluate a conditional point of compliance [for groundwater] at the boundary of the Inner Area	132	Groundwater is a valuable resource with beneficial future uses that must not be restricted outside of the individual waste management unit points of compliance within the core zone.
	145 Response	• **The [Hanford Site Groundwater] strategy should include a specific standard of contamination that is a trigger for action when detected.** Response: . . . The current approach in the plan is to evaluate the "trigger level" on a location and contaminant-specific basis.
	197	Groundwater Values - flowchart

Prior HAB Advice - How Remedial Alternatives are Evaluated

Assumption	Advice #	Advice
DOE may also choose to evaluate a conditional point of compliance at 10 ft. below ground surface	173 flowchart	Central Plateau Remedial Action Values Flowchart
	174	The Board's ideal for remedial action at all Central Plateau waste sites is to first characterize, then retrieve, treat and dispose of all wastes.
Unlike in the River Corridor, engineered structures and/or mass of contamination will not be removed unless it is a risk management decision.	See above	See above

Prior HAB Advice – Institutional Controls

Assumption	Advice #	Advice
Institutional Controls	63/63A	"It is anticipated that the 200 Area will be used for waste management activities well into the future. Institution controls will most likely be both physical and legal in nature."
	132	A continued human presence in the core zone would provide an ongoing, active institutional interest vested in future management of the risks posed by Hanford wastes . . .
	180	[Background] Better analyses of, and support for, IC assumptions are necessary . . .

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Questions?