

MEETING MINUTES
OU 1 PUBLIC HEALTH EVALUATION, CONTAMINANTS OF CONCERN
JULY 6, 1993

MEETING ATTENDEES:

Cindy Gee, Dennis Smith, Rick Roberts, Jeff Bray(EG&G)
Mike Anderson(Weston)
Beverly Ramsey(SMS/DOE)
Joe Gordon, Fred Duncan(Dames & Moore)
Gary Kleeman, Bonnie Lavelle(EPA)
Richard DeGrandchamp(PRC)
Jeff Swanson, Diane Niedzwiecki(CDH)

1. Introduction(Cindy Gee)- Just received EPA/CDH comments on COC's screened from site contaminants identified by UTL/background comparison/ANOVA process.

2. Review of COC Screening Flow Chart(Dennis Smith)- Human health risk assessment(HHRA)/ environmental evaluation(EE) will be performed on actual contamination from nature and extent determination. Nature and extent evaluation is initially performed on all data using UTL, ANOVA, and professional judgement. (flow chart attached)

Comments:

(Gary)- More professional judgement used than anticipated. Background UTL didn't screen much.

Discussion of Criteria:

3. Bonnie stated that EPA agreed with criteria #1,2,8(see attached: Criteria for Determining an Element or Compound is Not a Contaminant). Bonnie believed attached criteria for determination included added criteria that was not agreed upon previously.

(Dennis)-Method has been out for several months and is consistent with guidance. No reason for change.

(Diane)-CDH does not agree with criteria #7,9,10,11.

4. Beverly stated that EPA/CDH are going beyond identification of source by wanting analyzation of all analytes for the HHRA, not waste related analytes only. Mike explained that it does not make sense to include every analyte, a problem is statistical comparison to background doesn't always screen out analytes not of concern.

ADMIN RECORD

DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

A-SW-000694

5. Cindy clarified that no criteria was applied singly.

6. (Diane) CDH is concerned with criteria #10. If there are inconsistencies with groundwater background comparisons, further investigation is needed.

Joe explains criteria #10 is used when total results are less than filtered results.

7. Beverly confirms group agreement with criteria #1,2,8

8. (Diane) CDH does not agree with criteria #9 due to the chance for natural variation. In reference to criteria #11, should look at doses if ANOVA is invalid.

9. Cindy and Dennis state that there is no need for Remedial Investigation(RI) if HHRA and EE use all lab data. It is against National Contingency Plan to let HHRA determine COC's and give to RI.

Results of COC Screening(Joe)

10. Joe explained the results of contaminant screening displayed in the handout distributed at the meeting. Direct contamination was considered as ingestion/inhalation for surface soils and ingestion for groundwater. Joe used RAGS, part B standards in completion of screening contaminants. Dennis stated that inhalation standards are not conservative under B regulations; DOE uses a standard of 37 micro-g/m³ high volume samplers.

(Bonnie)-RBC's need to be based on multiple pathways. Dermal contact pathway must also be assessed. There is a difference in interpretation of NCP. Is there an assessment for all risk or only waste related risk? e.g. Arsenic

11. Joe's goals of the meeting were to know what methods to do next and to have sensible data which will make sense to the public.

Discussion of COC's:

12. Cindy asked for rationale on why agencies don't agree with criteria #3 and #4 when the spatial/temporal box has long been present in the flowchart diagram.

Answer(Bonnie) Thought #3,4 would include contaminants rather than exclude them. Bonnie requested that OU be changed to Rocky Flats Plant

in criteria #3.

Mike stated that criteria #4 was only used with chromium while #3 was used in connection with total/filtered results.

It was agreed that total (rather than filtered) will be used to assess contamination, as is done in the human health risk assessment.

13. Cindy confirmed with the group that criteria #1,2,3,4,8 is allowable. Gary stated that #3 would be allowed if argument is strong and clear.

14. Beverly defined outliers and Richard questioned if they were further pursued in anomalies screen.

15. Cindy stated that we should presently be at the EPA/CDH results stage, but instead we are at the previous step: methodology. (referring to COC screening flowchart) Will need an extra 2-3 weeks to rework RI and contaminant screen.

16. Bonnie questioned why the list of seventeen contaminants can't be included in nature and extent/screening process. Joe proposed that the group discuss the including or excluding of the seventeen contaminants. Richard believed that deciding on the seventeen contaminants now would not follow a method which would be defensible to the public.

17. Cindy proposes running the screen with criteria #1,2,3,4,8 and if list is different then EPA and CDH will review it.

18. Diane questions how #3 and #6 are different.

Answer: #3 represents pattern and is not across all media.

Gary Kleeman asks criteria #3 to read: Spatial distribution of concentrations within a medium is not indicative of contamination of OU waste origin.

19. Contaminants classified as essential nutrients were discussed. eg: Na, Ca, K

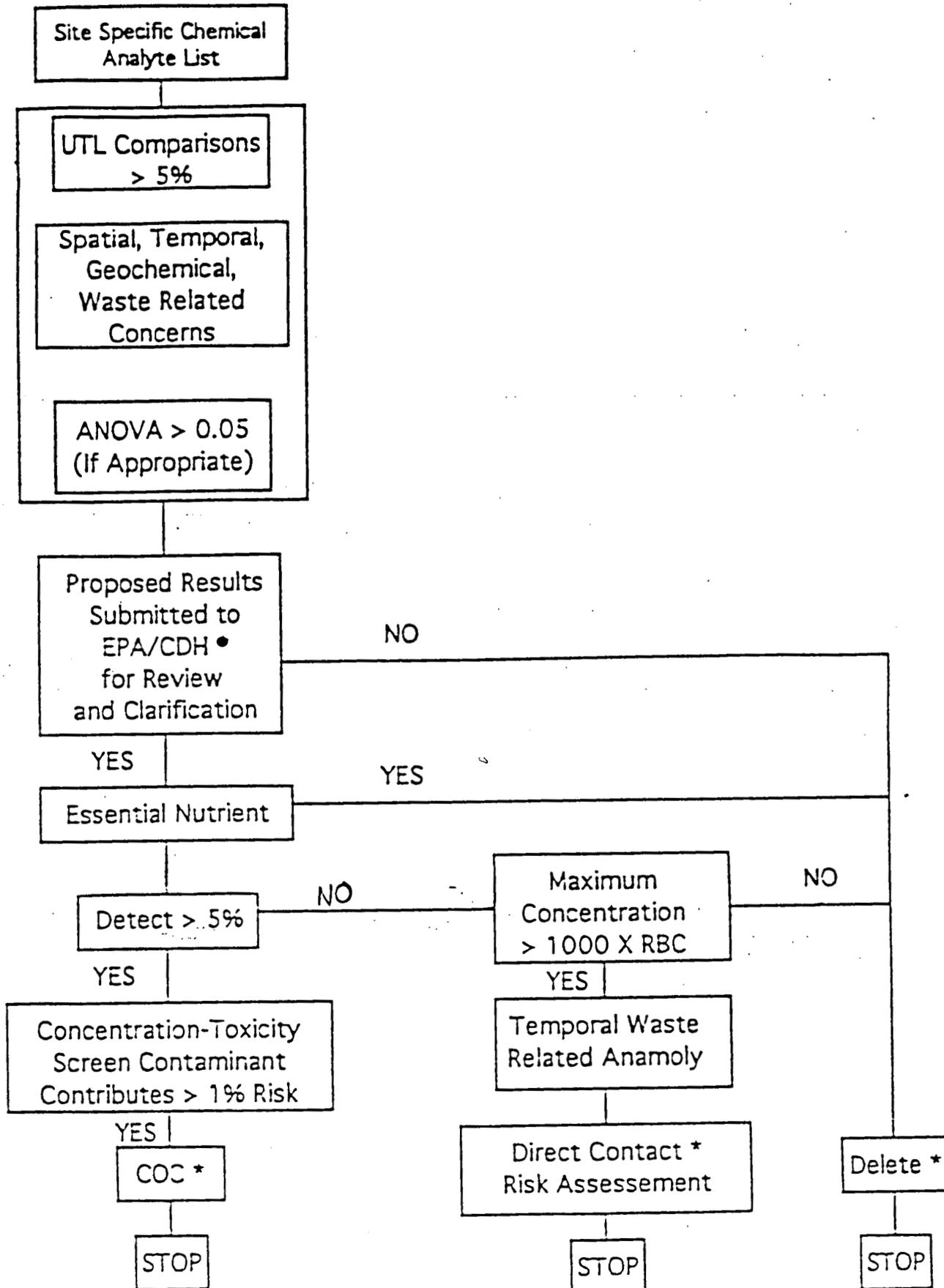
20. Bonnie stated that these meetings are for informational purposes for RI and cannot be used as official comment, or as a reason for schedule extension.

21. Final decision was to revise list of COC's using criteria #1,2,3,4,8

and then submit for agency comment. DOE will present a fuller argument by 7/12/93. The ER COC meeting will be held as planned and Dennis proposes a discussion of the seventeen contaminants after the meeting with Dr. Gilbert.

OU-1 RI REPORT COC SCREENING FLOW CHART
8-APRIL-1993

* Professional judgement may be used to retain or delete a chemical.



CRITERIA FOR DETERMINING AN
ELEMENT OR COMPOUND IS NOT A CONTAMINANT

- 1.A Frequency of background UTL (or max value, whichever is reported) exceedance is less than or equal to 5%, and data do not indicate a "hot spot" exists.
- 2.A For those analytes exceeding the background UTL (or max), ANOVA applied OU wide and by background subpopulations do not indicate a significant difference exists between the means of the OU and background populations for an analyte.
- 3.D^{ix} Spatial distribution of concentrations ^{within a media} is not indicative of contamination of OU waste origin.
- 4.D^{ix} Temporal distribution of concentrations at a station indicates the "high" value(s) is(are) outlier(s), and is the reason for failing criteria 1 or 2.
5. Other analytes are not determined to be contaminants in the sample or at the station.
6. It is not an identified contaminant in any other medium, particularly an upgradient medium or host medium.
7. It is not an expected contaminant i.e., it is not Be, H3, Pu, Am, U, chlorinated solvent or biodegradation product, or PCB.
- 8.A Laboratory and field blank data together with spatial and temporal distributions of concentrations suggest the results are laboratory or sampling artifact.
9. The site analyte concentrations are within the regional background range.
10. Significant differences with respect to background for groundwater are not consistent for total and filtered results.
11. Low percentage of detections potentially invalidating ANOVA results because of non-detection replacements

Notes:

- (1) Criteria 1 and 2 are primary criteria wherein, if the data for an analyte satisfy either criterion, the analyte is not considered a contaminant and no further data review is required.
- (2) A combination of criteria 3 through 9 are used to determine if an analyte is a contaminant when the data do not pass criteria 1 or 2.

at Damos: Moore 1pm

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22-141
100 SHEETS
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