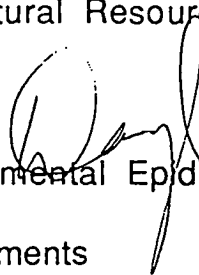




Missouri Department of
HEALTH

MEMO

To: Dave Bedan
Radioactive Waste Site Coordinator
Department of Natural Resources

From: Daryl W. Roberts 
Chief
Bureau of Environmental Epidemiology

Subject: FUSRAP BRA Comments

Date: March 13, 1992

Attached please find additional comments from our quantitative risk assessment program utilizing EPA guidance methodologies. These comments are submitted in addition to our previous comments of February 12, 1992.

If you have any further questions or concerns, please feel free to contact me at your convenience at 751-6102.

DWR:GMC:pw

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DEQ ADMIN

Comments on the
Draft Baseline Risk Assessment,
St Louis FUSRAP Site, St. Louis, MO

General Comment

The format used for tables in this document was frequently difficult to follow. The placement of numerous tables at the end of each section without page number references in the text made the document extremely unwieldy to the reader. A few simple format changes in the document would make it more useful to the reader.

Specific Comments

1. Page 1-7, section 1.2.1.1, fifth paragraph. The first sentence is awkward. Please reword for clarity.
2. Page 1-14, section 1.3. The baseline risk assessment evaluates potential risks to human health and the environment from *all* contaminants present at a site, regardless of their origin.
3. Page 1-16, section 1.3.2. Institutional controls are not considered in a baseline risk assessment.
4. Page 2-3, section 2.2, second paragraph. Weldon Springs may not be the most appropriate location to measure background levels of inorganic compounds. Additionally, it was not clear if the levels used for background in the Weldon Springs documents were specific to the state of Missouri or if they were national averages.
5. Page 2-13, section 2.3.1.1, last paragraph in the section. Was any sediment or surface water sampling conducted on the Mississippi River adjacent to the city property? It would be reasonable to assume that if contamination was widespread on the city property, it may have migrated to the river (a potential environmental risk).
6. Page 2-19, section 2.4.1, second paragraph. Without positive identifications of tentatively identified compounds (TICs), how can the risk from exposure to these compounds be estimated? If the risk cannot be estimated, it cannot be deemed insignificant. A better approach may be to discuss risks from TICs in the uncertainty section.
7. Pages 2-25 to 2-26, section 2.5.2. Lead can be evaluated using the lead Biokinetic Uptake model and there is an oral RfD for 2-butanone (methyl ethyl ketone) listed in the Health Effects Summary Tables.
8. Page 3-10, section 3.2.2. first paragraph. Although there may be no human exposure to Mississippi River sediments, fish and other river biota are exposed to these sediments.

9. Page 3-10 to 3-13, section 3.2.3. There are two additional exposure scenarios which may warrant consideration in this risk assessment. One scenario would be recreational, such as a jogger, who is exposed to external gamma radiation for a period of time on a daily basis (1 hour/ day, 5 days/week). A second scenario would be industrial, such as a construction worker, who is exposed for a limited period (10 hours/day for a 3-4 week period) of time to radiation and chemicals in subsurface soils.
10. Page 3-15, section 3.3.1.1, under Chemical Data. With highly skewed data from only six sampling points, maximum contaminant concentrations should be used to estimate intake instead of central tendency measurements.
11. Page 4-13 and Table 4-2. Rather than citing the outdated Superfund Public Health Evaluation Manual, either the Risk Assessment Forum or the Environmental Criteria and Assessment Office should be cited as a source for the slope factor for benzo(a)pyrene.