UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
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BOSTON, MASSACHUSETTS 02114-2023

May 2, 2002

Mr John Burleson
BRAC Environmental Coordinator
Stratford Army Engine Plant
550 Main Street
Stratford, CT 06497

Re Draft Technical Memorandum
Summary of Indoor Air Monitoring and Revised Risk Screening Analysis
Sampling Rounds 1-24
Stratford Army Engine Plant
Stratford, Connecticut

Dear Mr Burleson.

The United States Environmental Protection has reviewed the draft version of the document entitled "Technical Memorandum, Summary of Indoor Air Monitoring and Revised Risk Screening Analysis, Sampling Rounds 1-24, Stratford Army Engine Plant" The above-referenced document is dated March 22, 2002

EPA's comments on this document are provided in Attachment I to this letter

If you have any questions regarding this matter, please contact me at (617)918-1387.

Sincerely,

Meghan F. Cassidy
Remedial Project Manager

Enclosure

cc: Michelle Brock/Army Corps of Engineers
Ken Feathers/CT DEP
Nelson Walters/Harding ESE
Kristen Blake/Gannett-Fleming
RAB Members

ATTACHMENT I

The following are EPA's comments on the draft document entitled "Technical Memorandum, Summary of Indoor Air Monitoring and Revised Risk Screening Analysis, Sampling Rounds 1-24, Stratford Army Engine Plant". The above-referenced document is dated March 22, 2002

GENERAL COMMENTS

1. The risk screening analysis would more appropriately done with a set exposure duration EPA does not support using the exposure parameter, Exposure Duration, as a variable to be changed in order to determine the length of time that an office worker or maintenance worker may be exposed to the indoor air in these buildings. Using the ED as presented in this risk screening analysis could be construed as allowing the building users to be utilized as time-sensitive receptors, rather than simply "current or future" receptors.

   Limited exposure duration could be considered a risk management tool. A discussion of the exposure duration parameter within the uncertainties section may be a valid approach in evaluating the results of this risk analysis.

2 One concern upon review of the risk screening report is the failure to evaluate the potential recreational receptor's exposure for building B-6. According to information presented in Section 3.1, local residents are planning on renovating this building and using it as a possible aviation museum. Risks should be evaluated for an adult, youth and child recreational receptor who may visit the museum.

3. As per RAGS, this risk screening analysis should include a discussion of the uncertainties section which includes both inherent and evaluation specific uncertainties. Such uncertainties should identify the potential for overestimation and underestimation of the calculated risk. One specific area of uncertainty to be discussed is the Round 14 analytical results which were questioned and discussed in Section 2.1. Another specific source of uncertainties is the use of temporal maxima to estimate the exposure point concentration.

Specific Comments

1. **Section 3.1, Page 5:** The first paragraph of this section classifies the use of the buildings involved in this air monitoring study. There appears to be a discrepancy within this section concerning the use of Building B-6.

2. **Section 3.3, Page 6:** Please review the list of future receptors evaluated in this study based on General Comment 2. A future receptor in Building 6 may include a child recreational receptor who may visit the aviation museum.

3 **Section 3.6, Page 7:** Alternative toxicity values are discussed in the second paragraph of this section. In accordance with the RAGS D format, it is appropriate to provide the actual reference for the alternative toxicity values used. The reviewer was unable to verify some of the toxicity values as discussed in Specific Comments 8 and 9. Please include specific references for the alternative toxicity values.

4 **Section 3.8, Page 8:** In presenting the results of the cancer risks associated with the Current Office Worker at Leased Space Worst Case Scenario, please change the phrase "below the cancer risk limit" to "below the cumulative excess lifetime cancer risk limit of 1×10^{-5}."

5. **Table 3.2:** Please verify the conversion (from ppb to ug/m^3) for the tetrachloroethylene concentration in the table titled "Data Used for Current Office Worker at Leased Space." Upon review, it appears that the converted value is not correct and should be changed to 9.0.

6. **Table 3.4:** Please check the rounding used for transcribing the cancer risk for 1,1-dichloroethene from the tables in Appendix C to this table. It appears that some cancer risks have incorrectly been rounded from 1.5 E-06 to 1.E-06. The correct rounded value is 2E-06.

7. **Appendix A, Table A-1:** Please verify the CTDEP, I/C, IATC provided for vinyl chloride. The value presented in this table could not be verified. A re-screening of the air monitoring results may be necessary.

8. **Appendix C, Tables C-1 through C-14:** The inhalation cancer unit risk for tetrachloroethene could not be verified. According to the California Environmental Protection Agency's web page, the correct inhalation cancer unit risk for this compound is 5.9E-06. The references provided for the Appendices indicate that the value cited was either from HEAST, IRIS, or a 1994 CALEPA document. Please ensure that the most current referenced toxicological information is used in the risk calculations.

9. **Appendix C, Tables C-1 through C-14:** The chronic inhalation reference concentrations for 1,1,1-trichloroethane and tetrachloroethane could not be verified. Please review the list of references provided for the appendices and verify that the appropriate toxicological information is used in the risk calculations.

10. **Appendix C, Tables C-1 through C-14:** The non-carcinogenic hazard index for inhalation exposure to tetrachloroethene was not calculated for any of the risk table results presented in Appendix C. Please review these tables, ensure that the appropriate toxicity information is used, and provide corrected calculations.