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M-525

Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for Maywood, New Jersey



U.S. Department of Energy



Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831— 8723

October 27, 1995

Dr. Marvin Resnikoff
Radioactive Waste Management Associates
526 W. 26th Street
Room 517
New York, New York 10001

Dear Dr. Resnikoff:

MAYWOOD SITE - RESPONSE TO COMMENTS ON THE ENGINEERING EVALUATION/COST ANALYSIS (EE/CA) FOR CLEANUP OF THE RESIDENTIAL AND MUNICIPAL PROPERTIES

I want to thank you for the comments that you submitted on the subject document. As you know, many of your comments have been addressed in the responsiveness summary that is attached as an appendix to the EE/CA. I'm writing to you, however, to address one of your comments in more detail than our responses afforded. This letter, therefore, is being written to address your comments on the sufficiency of chemical characterization performed for the Maywood residential and municipal vicinity properties.

As commented, it is true that: 1) The remedial investigation (RI) included limited chemical sampling on vicinity properties and 2) migration potentials of chemicals identified as FUSRAP wastes differ from thorium and radium compounds (see Section 5.0 Maywood RI). However, conclusions can be confidently drawn, based on the RI and Baseline Risk Assessment (BRA), specifying that chemicals have not migrated (or been removed) from the Maywood interim Storage Site (MISS) to vicinity properties in concentrations capable of producing risks and that these chemicals remain associated with areas of radiological contamination.

As can be seen by examining historical information, the radiological survey, and analytical data presented in the RI, the three properties selected for chemical sampling represent an excellent cross section of the types of vicinity properties regarding contaminant migration mechanisms and extent of contamination. One of the properties (90 Avenue C) represents a property contaminated by way of a previous owner physically moving contaminated materials onto the property, while 113 Avenue E and 62 Trudy Drive are examples of areas contaminated via surface water and sediment deposition (the primary migration pathways for both radiological and chemical transport). The levels of radiological contamination measured at these properties again reflect an excellent cross section ranging from background to the highest levels in many cases.

Discussed in Section 4.6.2 and displayed in Tables 4-28 and 4-29 of the RI, chemical analytical results (from samples taken above, within, and below areas of radiological contamination on the three vicinity properties sampled) showed

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that only 10 FUSRAP waste metals were detected at above-background concentrations and that these were predominantly detected within radioactively contaminated lenses. This is significant because:

- The lack of organics in or out of radiologically contaminated areas indicates that organic compounds have not migrated from MISS in significant quantities. This is not surprising given that organics were detected at relatively low frequencies and concentrations on MISS.
- The collocation of the metals with the radiological contamination demonstrates that despite differing solubility characteristics and soil affinities, the offsite nonradiological FUSRAP wastes (the metals) have apparently migrated from the site to the vicinity properties via the same release mechanisms, migration pathways, and depositional patterns as the radiological contaminants. Furthermore, it indicates a lack of differing leaching rates since deposition occurred.

Finally, it is important to note that under the reasonable current use scenario (presented in the BRA), none of the estimated cancer risks (from chemicals) exceed the EPA target risk range for employees or transients at MISS or Stepan (see Section 5.4.2 of the BRA). Similarly, results of the BRA concluded that there was no concern for potential noncancer health effects. Given that the concentrations of nonradiological (and radiological) contaminants have been substantially reduced by dilution during their migration offsite, the associated risks would be even lower.

If you would like to discuss this further, please call me and I can arrange for you to talk with some of our chemists. My number in Oak Ridge, Tennessee, is (423) 576-5724.

Sincerely,



Susan M. Cange, Site Manager
Former Sites Restoration Division