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Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for Maywood, New Jersey



U.S. Department of Energy

125545



State of New Jersey Jan 24 9 02 AM '95

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Mr. Michael J. Nolan
Concerned Citizens of Maywood
48 West Grove Avenue
Maywood, New Jersey 07607

JAN 17 1995

Dear Mr. Nolan:

Re: United States Department of Energy Maywood Interim Storage Site (MISS) Remediation

Assistant Director Ronald Corcory has asked me to respond to your two facsimile requests of January 3, 1995 with regard to the referenced site. You requested a clarification with regard to the position that the State of New Jersey has taken relative to the cleanup of the Maywood site. I will answer your queries in the order in which they were presented.

1) With regard to New Jersey Department of Environmental Protection (NJDEP) "Impact to Ground Water Soil Cleanup Criteria" for soils at the Maywood site, no such criteria currently exist for the radiological contaminants of concern, thorium, radium and uranium. As you are aware, soil cleanup criteria for radiological contaminants are being developed specifically for this site and in compliance with requirements set forth by N.J.S.A. 58:10B-12d(1). As the specified radiological contaminants adhere to particulates and are not readily soluble in water, remediation of overburden soils will be protective of underlying ground waters. Therefore, as soil cleanup guidelines are developed and agreed upon by all respective regulatory agencies, the final remedial design shall also be protective of site ground waters as defined above.

2) Presumably the wetlands areas referenced in your correspondence form part of the Stepan property which is currently being addressed under a United States Environmental Protection Agency (USEPA) Administrative Order on Consent (AOC). Therefore, the investigation/remediation of the Stepan Property is part of separate and distinct "Superfund" action with the USEPA as the lead agency. As you know, you may contact the USEPA Project Manager Angela Carpenter, at 212-264-3032 for information concerning this site.

3) As you know, soil remediation of the Sears and adjacent properties has been included in the United States Department of Energy (USDOE) proposals for cleanup of the Maywood Interim Storage Site (MISS). As indicated above, once an appropriate cleanup number for soils at these properties is designated by the NJDEP, USEPA and USDOE, and dependant on USDOE funding, site remediation activities will commence and include the necessary protection for potentially impacted aquifers.

4) The use of "To Be Considered" criteria or TBC's in the absence of ARAR's is valid provided such criteria exist. As referenced above, such radiological criteria are being developed on a site specific basis and are not currently included as part of what you refer to as NJDEP's "Action Levels".

5) The above discussion has focused upon radiological contamination of soils. As noted in item #2, investigation/remediation of the Stepan property is proceeding under an AOC with the USEPA. As you know, the final remedial design identified by the USEPA in cooperation with this office for the Stepan property will address potential organic/inorganic contaminant impacts to vicinity aquifers.

6) With reference to the December 12, 1994 memorandum presented by "RWMA", consultants to the Concerned Citizens of Maywood, the subject memorandum suggests a reappraisal of thoron or Rn-220 as well as Pb-212 contributions to overall risk. Questioning the original sampling and analyses for thoron, the consultant's proposal initially calls for a new sampling program for Pb-212 as an estimator of thoron gas concentrations based upon the decay of Rn-220 to Po-216 to Pb-212 assuming equilibrium conditions. Subsurface migration of thoron gas with a half life of 55 seconds through and into structures does not occur readily. Nevertheless, as indicated in the 1993 Baseline Risk Assessment for the Maywood Site, impacts from Th-232 and decay products were considered during risk estimation. Assuming the delineation of the Th-232 and its decay products to be acceptable, a new round of thoron gas sampling may not be appropriate. This assumption appears to be confirmed as the memorandum goes on to point out that "...DOE has not correctly understood the thoron hazard. The hazard is from inhaling lead-212 particulate...". Again, as a Th-232 daughter product, potential impacts from Pb-212 are included in the 1993 USDOE risk characterization. Nevertheless, the decay of thoron gas to Po-216 with a half life of 0.16 seconds and also a particulate, would likely reduce subsurface to surface mobility as Th-232 and decay products are found at depth. Decay of Po-216 to Pb-212 as a mobile particulate from surface soils to ambient or "outdoor" air under ideal conditions would be difficult to quantify in light of natural atmospheric turbulence especially in the absence of significant excavation and concomitant dust evolution of radiologically contaminated soils. Therefore, it appears that the suggested sampling in undisturbed areas may not be warranted.

If you have any further questions regarding this matter, please feel free to contact Nicholas Marton at (609) 633-1455.

Sincerely,



Bruce Venner, Bureau Chief
Bureau of Federal Case Management

c: Nicholas Marton, MPH, BFCM
Susan Cange, USDOE
Angela Carpenter, USEPA

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