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Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for Maywood, New Jersey



U.S. Department of Energy



State of New Jersey
Department of Environmental Protection and Energy

Division of Responsible Party Site Remediation

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Trenton, NJ 08625-0028

1993 APR 12 PM 2:10

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

Ms. Susan Cange, Site Manager
Former Sites Restoration Division
Department of Energy
Field Office, Oak Ridge
P.O. Box 2001
Oak Ridge, TN 37831-8723

APR 08 1993

Dear Ms. Cange:

Re: Maywood Site - Performance Criteria and use of Treated Soil

Please be advised that this office is in receipt of your March 17, 1993 correspondence. The New Jersey Department of Environmental Protection and Energy (NJDEPE) does not concur offers with the United States Department Of Energy's (USDOE) proposed use of radiologically contaminated soils containing no more than 15 picocuries per gram (pCi/g) of radium and thorium as fill material. The following comprises NJDEPE concerns with regard to the suggested 15 pCi/g guidelines:

1) The NJDEPE maintains that the maximum concentration for radium-226 should not exceed 5 pCi/g. At this level, an estimated 4 picocuries per liter (pCi/l) of radon would be added to the lowest indoor level of a residential structure (2.5 pCi/l is the statewide average). Such a concentration would translate to an approximate lung cancer risk of 2×10^{-2} . The proposed 15 pCi/g level would potentially triple the resultant indoor radon concentration and the attendant lung cancer risk.

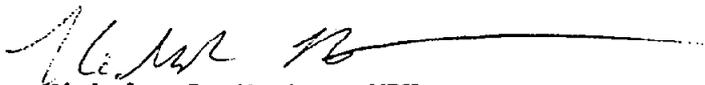
2) The proposed use of 6" of clean fill over radium contaminated soils at concentrations of 15 pCi/g is not acceptable. The USEPA reports indicate that a minimum of two feet of clean fill (@1 pCi/g) is necessary to cover 15 pCi/g soils to reduce indoor radon levels in slab-on-grade homes to 4 pCi/g or lower. Additionally, the suggested 15 pCi/g radium - 226 guideline exceeds the NRC Technical Branch position with regard to releasing uranium and thorium contaminated sites for unrestricted use.

Therefore, in light of the above discussion, the NJDEPE maintains that the proposed guideline of 15 pCi/g with a 6" cover of clean fill is not sufficiently protective of human health. Furthermore, the NJDEPE recommended substitute guideline is a maximum of 5 pCi/g for radium contaminated soils with a minimum of two foot of clean fill as cover.

102890

If you have any questions concerning the above please feel free to contact me at
(609) 633 - 1455.

Sincerely,



Nicholas L. Marton, MPH
Research Scientist II/Case Manager
Bureau of Federal Case Management

c: Jonathan Berg, BFCM
Steve Byrnes, BEERA
Greg Rapp, BGWPA
Bob Stern, BER
Jeff Gratz, USEPA

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