

Frisco

JUN 21 1993

Mr. George Pavlou, Acting Director
Emergency & Remedial Response Division
U.S. Environmental Protection Agency
Region II
Jacob K. Javits Federal Building
New York, New York 10278

Mr. William M. Seay, Acting Director
Former Sites Restoration Division
U.S. Department of Energy
Field Office, Oak Ridge
P.O. Box 2001
Oak Ridge, Tennessee 37831

Re: Cleanup Levels for Radionuclide Contamination at the Maywood Chemical Company Superfund Site, Maywood, New Jersey

Dear Members of the Dispute Resolution Committee:

The purpose of this letter is to notify the Dispute Resolution Committee (DRC) that respective project managers and immediate supervisors at EPA Region II and DOE's Oak Ridge Field Office have been unable to come to an agreement regarding cleanup levels for radionuclide contamination at the Maywood Chemical Company Superfund Site, as required by Section XV of the Federal Facility Agreement (FFA) entered into by EPA and DOE for the Maywood Site. Pursuant to Section XV of the FFA, a 30-day informal dispute resolution period which began with your receipt on May 21, 1993 of our letter to you, expires today. The Parties to the FFA have not been able to informally resolve the cleanup level issue. Therefore, this letter serves as EPA's formal written statement of dispute, thereby elevating the dispute to the DRC for resolution.

Background

On April 20, 1993, DOE submitted to EPA the draft final Feasibility Study (FS) and Proposed Plan for the Maywood Site. In the FS and Proposed Plan, DOE identifies the following remedial action objectives for residual soil contamination:

5 pCi/g averaged over the first 15 centimeters (cm) below the surface, and

15 pCi/g averaged over 15 cm thick layers more than 15 cm below the surface.

(2)

These numbers were developed to support the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA). Title I of UMTRCA authorized standards for disposal (Subpart A of 40 CFR Part 192) and cleanup (Subpart B) of uranium mill tailings at sites designated under Section 102 (a)(1) of the Act. Those sites are a closed set chosen in 1979 and cannot be added to. They include "vicinity" sites at which cleanup of specified off-site properties for unrestricted use is authorized. **DOE contends that, while these cleanup levels are not directly applicable to the Maywood Site, they are relevant and appropriate as well as protective of human health.**

EPA Position

EPA has two objections concerning the use of these cleanup criteria at the Maywood Site. First, we contend that the 15 pCi/g limit is not an applicable or relevant and appropriate standard (ARAR) for Maywood and, based on site conditions at Maywood, the limit provides inadequate assurance that a safe level of health protection will be met. Second, we contend that the 5 pCi/g limit, while not applicable, is relevant and appropriate at the Maywood site at all soil depth levels and is protective of human health subject to confirmatory site-specific measurements.

- 1) The concentration criterion for subsurface soil in Subpart B of 40 CFR 192 (15 pCi/g of radium-226) is not a health-based standard. Thus, it should not be applied to situations in which a health-based standard is appropriate, or to situations that differ substantively from those for which it was derived. The basis for this criterion is documented in the materials accompanying the promulgation of Subpart B (see the preamble to the final rule in 48 FR 600 and accompanying Final Environmental Impact Statement (FEIS) on pages 134-137 and D-51 to D-52; and *Findings of an Ad Hoc Technical Group on Cleanup of Open Land Contaminated with Uranium Mill Tailings, EPA, 1981, Docket A-79-25*), and is summarized below.

The criterion for subsurface soil was derived as a practical measurement tool for use in locating discrete caches of high activity tailings (typically 300-1000 pCi/g) that were deposited in subsurface locations at mill sites or at vicinity properties. The criterion for subsurface soil in Subpart B was originally proposed as 5 pCi/g (46 FR 2562). The final regulation was changed, not because the health basis was relaxed, but rather in order to reduce the cost to DOE of locating buried tailings - under the assumption that this would result in essentially the same degree of cleanup at the Title I sites as originally proposed under the 5 pCi/g criterion (48 FR 600 and FEIS page D-51). The use of a 15 pCi/g subsurface criterion allowed the DOE to use field measurements rather than laboratory analyses to determine when buried tailings had been detected. It is only appropriate for use as a cost-effective tool to locate radioactive waste in situations where contaminated subsurface materials are of high activity and are not expected to be significantly admixed with clean soil.

(3)

The 15 pCi/g subsurface criterion was not developed for situations where significant quantities of moderate or low activity materials are involved. Such is the case at the Maywood Site. Its use in such a circumstance would be inappropriate and would not satisfy the risk objectives achieved under Subpart B for uranium mill tailings.

- 2) The concentration limit for surface soil in Subpart B of 40 CFR 192 (5 pCi/g radium-226) is a health-based standard and can be reasonably applied as a relevant and appropriate requirement for radium-226 or combined radium-226 and radium-228. The relevant health risk for surface soil, external gamma exposure, provides the basis for this limit. (The basis is noted in the preamble to 48 FR 600 and is discussed in greater detail in the accompanying FEIS on pages 57, 111-112, and 134-137.) The concentration limit can be reasonably applied to subsurface soils as well. As discussed above, the criterion for subsurface soils in Subpart B was originally proposed as 5 pCi/g but was changed in the final regulation to 15 pCi/g. The 15 pCi/g criterion was not developed for situations such as at Maywood, where significant quantities of moderate to low activity materials exist in subsurface soil. The risk scenarios at the Maywood Site, however, are sufficiently similar to those in UMTRCA to warrant use of 5 pCi/g, the health-based standard.

The intent of the remedial objectives is to allow unrestricted access to the site either in the current or future use scenario. **It is EPA's position that the appropriate soil concentration criterion should be 5 pCi/g through all soil layers regardless of depth.** As an attachment we have included two technical papers which support our position: *Cleanup Standards for Radium Contaminated Soils*, Russell, John L. and Richardson, Allan C.B., Office of Radiation Programs, USEPA, presented in the Waste Management '92 Symposium, University of Arizona, Tucson, March, 1992 and *Scientific and Public Issues Committee Position Statement: Radiation Standards For Site Cleanup and Restoration*, Kathren, R. et.al., Health Physics Society Newsletter, June, 1993.

Pursuant to Section XV of the FFA, the DRC has 21 days following receipt of all statements of position (or the expiration of the period provided for their submittal) to unanimously resolve this dispute and to issue a written decision. Upon receipt of this letter, DOE will have 30 days to submit a position paper after which the 21-day period will commence. I hope that we can come to an agreeable resolution of this issue within the above timeframe. If you have any questions, please call either of us, Jeff Gratz at (212) 264-6667 or Bob Wing at (212) 264-8670.

(4)

I am transmitting a copy of this letter to you via FAX today, June 21, 1993.

Sincerely,

Jeffrey Gratz, Project Manager
Federal Facilities Section

Robert J. Wing, Chief
Federal Facilities Section

Attachment

cc: S. Cange, DOE-OR w/attach
J. Wagoner, DOE-HQ w/attach
N. Marton, NJDEPE w/attach

bcc: V. Pitruzzello, 2PSB
W. Tucker, 2ORC w/attach
J. Frisco, 2ERRD
R. Hargrove, 2EIB w/attach
P. Giardina, 2AWM-RAD
A. Short, 2AWM-RAD w/attach
R. Thomas, 8HWM-SR w/attach
P. Nyberg, 8HWM-RAD
K. Flournoy, 7WMD w/attach
P. Seppi, 2EPD w/attach
P. Brandt, 2EPD

M. Oge, HQ-ORIA
D. Pujari, HQ-OFFE w/attach
B. McCabe, 2ERRD
G. Davidson, HQ-OFFE
R. Carr, HQ-OFFE
A. Richardson, HQ-ORIA w/attach
R. Frey, 5WMD w/attach
L. Jenson, 5ARD-RAD
C. Wakamo, 4WMD
J. Richards, 4AIR-RAD