

Rocky Flats Citizens Advisory Board Recommendation 2001-2

to the U.S. Department of Energy

Comments on the RSOP for Soil and Asphalt Management

Approved June 7, 2001

The purpose of the RSOP for Soil and Asphalt Management is to provide consistency between the various regulatory and procedural requirements for managing disturbed soil and asphalt. The soils include drill cuttings, excess sample materials, construction related soils, utility line repair soils, soils from ditch cleaning, etc.

The Rocky Flats Citizens Advisory Board understands the need to streamline procedures for managing disturbed soil and asphalt and supports the premise of the RSOP for Soil and Asphalt Management. However, the board has several major concerns that can be clarified with simple changes to the text of the document. These concerns and the suggested changes are listed below.

Background

According to the Background Section (Section 1.2), the current procedures allow for the replacement of soils with concentrations of hazardous constituents (RCRA) greater than the RFCA Tier I levels. Soils with radioactive contaminants greater than RFCA Tier I levels cannot be returned to the excavation site and must be containerized. In all cases, investigation derived materials (samples and drill cuttings) cannot be returned to the environment if the soils exhibit the characteristics of a hazardous waste or contain concentrations above the preliminary remediation goals (10^{-6}).

This RSOP proposes the option of returning all soils, including investigation-derived materials and radioactive soils, with concentrations greater than Tier I to the original location.

In addition, this RSOP expands the range of options for managing the soils that contain concentrations below Tier II and the soils with concentrations between Tier II and Tier I levels. The RSOP proposes a unique option for these soils, to remove the soils from their original excavation point to another location. For soils greater than Tier II, but less than Tier I, the new location would have to exhibit similar contaminants with similar concentrations. For soils with hazardous concentrations below Tier II, the new location would only have to be located in the same OU, regardless of the type of contaminants and concentration. Radioactive soils, below Tier II levels, could be placed in a new location with similar

isotopic profile, regardless of concentration.

Concerns

The new options for moving soils within the OU are disturbing for two reasons:

1. It appears this RSOP is attempting to circumvent the RCRA land disposal restriction (LDR) rules which require the treatment of remediation soils to significantly reduce the total constituent concentrations (i.e. by as much as 90%) before the soils can be "placed" into the environment. Any movement of contaminated soils (above the LDR levels) from one "area of contamination" (AOC) to another is considered "placement." The RSOP suggests that the Industrial Area (or Buffer Zone) as a whole is equivalent to an AOC. The RSOP's implied interpretation of AOC does not meet the definition provided in CERCLA/RCRA, where an AOC is an existing area of continuous contamination, such as a single RCRA unit (i.e. landfill) and associated plumes. The classification of the entire Industrial Area (or Buffer Zone) as one AOC is overly broad and misleading. This misapplication of the AOC concept could constitute unlawful disposal of hazardous waste (EPA letter to N. Nosenchuck, March 25, 1996) Note: The RCRA LDR rules apply to hazardous constituents and mixed (radioactive) hazardous constituents.
2. The commingling of soils is a great concern. The movement of soils with concentrations below Tier II levels to areas with contaminants of higher concentrations could result in a dilution effect of the contaminated soils. Likewise, the dilution effect could occur in areas where subsurface soils are returned to the same location at the surface, where concentrations are much higher. The dilution principle is recognized in RCRA as a form of abuse (avoiding treatment standards) and is strictly prohibited in most cases. Commingling of soils could also result in the generation of waste by contaminating soils with different contaminants or different concentrations.

The board requests language in the RSOP limiting the use of the options to transport soils with concentrations less than Tier I levels from one AOC to another. Soils should not be placed in areas with different contaminants. In addition, this option should not be available to replace large quantities of soil, unless the LDR requirements are met. A description of the criteria used to determine how options are selected would be helpful in Section 2.

3. The RSOP references the RFCA Tier I and Tier II Industrial Use Action Level and the Tier I and Tier II Open Space Use Action Level (See RFCA, Attachment 5). The Action Level Framework (ALF) provides soil action levels for surface and subsurface soils. The RFCA parties anticipate the RFCA document will be modified, amended or replaced, once new surface and subsurface soil action levels for radionuclides are finalized. The board is concerned that the revised subsurface soil action levels will be used as the threshold levels for evaluating options per this RSOP. The board is concerned that subsurface soil action levels will be significantly less conservative than surface soil action levels. Possibly, the subsurface Tier II level could be higher than the surface soil Tier I level.

The board requests clarifying language in the RSOP limiting the Tier I and Tier II threshold soil action levels for radionuclides to surface soil action levels only.

4. The board is concerned that areas where soil disturbances have already occurred and where action has been taken, will be "grandfathered" into this RSOP. For example, at two waste disposal trenches, T- 3 and T-4, contaminated soils were excavated, treated, and replaced in 1996. Radioactive soils were segregated. At that time, the regulatory agencies established temporary standard for the amount of radioactivity that could be replaced into the trenches. Using these temporary standards, the regulators approved replacing the soil. The regulators approved final standards in the RFCA in the fall of 1996 and agreed to re-evaluate the trenches at a later date, if necessary.

The board request clarifying language in the RSOP limiting the applicability of the RSOP to current and future soil disturbances, excluding the T-3 and T-4 soils and other similarly contaminated sites.

5. The definitions of staging piles and stockpiles are confusing. The only difference between the two forms of temporary storage appears to be the requirement that stockpiles are managed with tarps. Thus, the RSOP implies that staging piles do not have to be similarly managed. However, RCRA 40 CFR 264.554(d)(1) requires that the staging pile must be designed to prevent or minimize the releases of hazardous wastes into the environment and to minimize or adequately control cross media transfer (i.e. through the use of lines, covers, run-on/run-off controls).

The board requests language describing exactly how stockpiles will be managed to protect the environment through the use of run-on/run-off controls, covers, liners, etc.

The Rocky Flats Citizens Advisory Board is a community advisory group that reviews and provides recommendations on cleanup plans for Rocky Flats, a former nuclear weapons plant outside of Denver, Colorado.

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