

RADIONUCLIDES IN WATER

A. Summary of Treatment of Radionuclides in Water Released from DOE facility:

1. There is no clear waiver of sovereign immunity concerning groundwater.
2. In Train v. Colorado PIRG, 426 US 1, the US Supreme Court held that Congress did not intend for material governed by the Atomic Energy Act to be included as pollutants under the Clean Water Act.
3. EPA at 40 CFR 122 (National Pollutant Discharge Elimination System (NPDES) regulations) notes that the term "pollutant" does not include radioactive materials regulated under the Atomic Energy Act of 1954, 42 USC 2011 et seq., as amended. That regulation in a footnote cited the Train decision.
4. Radionuclides, including materials regulated under the AEA, are considered to be contaminants under CERCLA.
5. Groundwater is cleaned up to Safe Drinking Water Act standards under CERCLA.

B. Application of principles at Rocky Flats, Colorado:

1. Colorado because its state Constitution makes all water subject to appropriation has extensive surface and groundwater regulations which include "special nuclear material" as that term is defined in the AEA.
2. DOE HQ during negotiations of the Rocky Flats Cleanup Agreement (RFCA) decided that special nuclear material is covered as a contaminant under CERCLA but is not a pollutant under CWA.
3. In RFCA, it was decided that if groundwater daylights than it would be cleaned up to the appropriate surface water limits.
4. In negotiating the NPDES permit for Rocky Flats, DOE held firm that there were to be no restrictions on special nuclear material. However, Colorado refused to certify the permit because it did not cover plutonium and americium. EPA did not issue the permit until Colorado under then State Attorney General Ken Salazar gave up on the issue. The NPDES permit does contain gross alpha and beta limits with the understanding that if the permit limits was busted due to alpha/beta produced by special nuclear material, DOE was free to prove that in front of a judge.

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Summary for Rocky Flats:

1. NPDES discharge points had no restriction on release of americium or plutonium.
2. NPDES discharge points were above the RFCA points of concern (which were generally at the Rocky Flats boundary).
3. Plutonium and americium were covered under RFCA as contaminants under CERCLA and exceeding the limits at the POCs made DOE subject to fines and penalties.
4. So, could release americium and plutonium under NPDES but if it left Rocky Flats, DOE would then be subject to fines and penalties under RFCA.
5. All groundwater plumes that were known to daylight and impact surface water were cleaned up to Colorado surface water standards.

C. Application of Principles at BNL:

All groundwater plumes are cleaned up to meet Safe Drinking Water Act requirements.