



## Department of Energy

Richland Operations Office  
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APR 26 1991

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Mr. Terry Husseman, Assistant Director  
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Mr. Eric Slagle, Assistant Secretary  
Washington State  
Department of Health  
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Dear Messrs. Husseman and Slagle:

### REGULATION OF RADIOACTIVE AIR EMISSIONS

As you know, state authority to regulate radionuclide air emissions at the Hanford Site is shared by the Department of Health (DOH) and Washington State Department of Ecology (Ecology). The dual authority results from DOH's Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides [Chapter 246-247 Washington Administrative Code (WAC) and Revised Code of Washington (RCW) 70.98] and Ecology's Prevention of Significant Deterioration (PSD) [WAC 173-400-141]. This authority has produced redundant and sometimes contradictory requirements and has left U.S. Department of Energy, Richland Operations Office (DOE-RL) without clear and consistent guidance regarding radionuclide airborne emissions. The DOE-RL does not believe that it should be put in such a position. The problem has already led to unnecessary costs and delays for both DOE-RL and the regulating agencies and has the potential to lead to much greater costs and delays in the future.

The 1990 Federal Clean Air Act Amendments have removed the statutory authority for PSD review for air toxics, including radionuclides. Under the 1990 Amendments, air toxics will be regulated using Maximum Available Control Technology (MACT) which will be implemented through another permit program. A recent Environmental Protection Agency (EPA) memorandum from Mr. John S. Seitz, Director of the Office of Air Quality Planning and Standards, provides guidance for implementing the new PSD requirements. This memorandum indicates that if a state has acted to adopt an independent basis for the authority to impose PSD requirements then the state may continue to regulate air toxics under that authority. The memorandum also states that if a state's authority for imposing PSD



requirements is solely under delegation from EPA, the exemption for radionuclides and other air toxics applies immediately. The DOE-RL believes Ecology's authority is solely based on the federal delegation and, therefore, radionuclides should be exempted from PSD review.

To become consistent with the 1990 Amendments and to help resolve the problems with dual authority, the DOE-RL requests that DOH and Ecology take a more coordinated approach to regulating radionuclide emissions. The DOE-RL requests that the approach be based on DOH's Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides (Chapter 246-247 WAC) and remove radionuclide emissions from PSD review since the statutory basis has been removed from the law. Under this approach, DOH would consider requirements under MACT for establishing source controls. This request is based on the following:

1. Consistency with the 1990 Clean Air Act Amendments and EPA guidance.
2. The DOH's authority to regulate radionuclide emissions.
3. The existing problems resulting from dual regulation and split responsibilities.

The DOE-RL believes this approach is consistent with existing statutory authority and is a common sense approach which provides a legal and regulatory avenue for correcting the issue of dual authority. This approach will allow DOH to fulfill its role as the state's radiation protection agency and will not be in violation of Ecology's current PSD authority under the 1990 Clean Air Act Amendments. It will eliminate excess costs associated with dual regulation and provide a level of protection to human health and the environment which is mandated by both departments. The DOE-RL requests this approach be taken in the interim until Ecology promulgates regulations for implementing the 1990 Clean Air Act Amendments. At that time, the approach can be evaluated and modified as necessary.

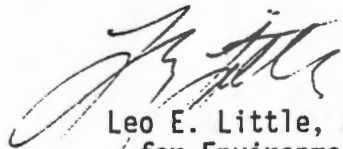
In addition, this approach will encourage consistent application of PSD regulations throughout the state. Based upon conversations with Ecology staff members, it is DOE-RL's understanding that Ecology is not applying the PSD regulations consistently across the state. These conversations have indicated that PSD sources other than Hanford are not being required by Ecology to undergo PSD review for any radionuclides, even though their emissions may include them. This appears to be an inconsistent application of state regulations.

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Messrs. Husseman and Slagle -3-

Enclosed is background information on the dual authority issue for your consideration. I would be happy to discuss this coordinated approach with you and I look forward to hearing from you in the near future.

Sincerely,



Leo E. Little, Assistant Manager  
for Environmental Management

ERD:SDS

Enclosure:  
Dual Authority for Radionuclide  
Airborne Emissions

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BACKGROUND INFORMATION  
DUAL AUTHORITY FOR RADIONUCLIDE AIRBORNE EMISSIONS

The following information is provided in support of DOE-RL's request of DOH and Ecology to adopt a coordinated approach to regulation of radionuclides. This approach is based on DOH's Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides and removes radionuclide emissions from Prevention of Significant Deterioration (PSD) review.

Statutory and Regulatory Authority

The DOH's Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides [Chapter 246-247 WAC and RCW 70.98] and Ecology's PSD Regulations [WAC 173-400-141] have created dual authority for regulating airborne radionuclide emissions.

Under Chapter 246-247 WAC, the DOH exercises its authority to establish procedures for the monitoring, control and reporting of airborne radionuclide emissions to assure compliance with applicable standards. The statutory authority (RCW 70.98.050[1]) should be cited in the text. Also, the quotation does not track the most current language from the RCW supplement. This should be corrected:

"The department of health is designated as the state radiation control agency hereinafter referred to as the agency, and shall be the state agency having sole responsibility for administration of the regulatory, licensing and radiation control provisions of this chapter."

Under WAC 173-400-141 and, by reference, the federal requirements in Section 40 CFR 52.21, Ecology requires a PSD review for a new or modified source of airborne radionuclide emissions. Statutory changes through the 1990 Federal Clean Air Act Amendments have removed authority to require PSD review for radionuclides.

**1990 Clean Air Act Amendments**

The 1990 Clean Air Act Amendments specifically say that PSD review shall not be applied to any pollutants on the air toxics list, which includes radionuclides. Under the 1990 Amendments, air toxics will be regulated using both a technology control emission standard known as Maximum Available Control Technology (MACT) and a health-based emission standard, known as "beyond MACT." Both standards will be implemented through a permit program.

The MACT standard will generally require the maximum degree of emission reduction based on the technology available. In applying MACT, EPA may take into consideration the cost of achieving emission reductions, any non-air-quality health and environmental impacts, established health threshold levels for a specific pollutant, and any energy requirements. In determining MACT, EPA will evaluate the best controlled existing source

within the same category. Within eight years after the establishment of the MACT standard, EPA will publish emission standards based on the residual risk to public health. The MACT and emission standards will be implemented through a permit process.

#### Problems of Dual Authority

Under dual authority, Hanford is required to obtain separate "approvals to construct" from both DOH and Ecology. Since each department has different application procedures with different information required, it requires DOE-RL to submit two individual application packages. This, in turn, requires two individual reviews and all the time and costs which go along with those reviews.

A second issue is the timing of the different reviews. Although DOH application requires more detailed information, DOH has taken significantly shorter time to approve an application than Ecology (In fact, Ecology has yet to approve an application for a new or modified source of radionuclide emissions requiring PSD review. The first such application was transmitted to Ecology and DOH on September 28, 1989.) Part of Ecology's delay arises because Ecology must have both the Hanford section and the Air Quality Program review the applications, while the DOH's review is conducted solely within the Radiation Protection Division.

A third issue is reconciling different technical requirements from the two departments. This issue currently exists with the Grout Project. On May 21, 1990, the DOH approved the projected tritium emissions from the Grout Project as meeting Best Available Radionuclide Control Technology (BARCT) requirements. However, Ecology has called for further analysis to justify not installing a vapor condenser, which it considers Best Available Control Technology (BACT).

The difference in requirements results from different interpretations of BARCT and BACT. Ecology has stated in general that regardless of how minor an air emissions level may be, lack of a treatment system will not be accepted as BACT; and economics will not be considered as a deciding factor. This is apparent when one considers that the cost/benefit ratio for the Grout Project condenser equates to one billion dollars per millirem of dose reduction for the maximally exposed public individual. On the other hand, DOH considers both costs and health risks to be a factor in determining BARCT. Although there is functionally no difference between BACT and BARCT, each department has interpreted the requirements

differently. The new 1990 MACT requirement, although not yet defined in regulation, will help eliminate this issue.

Summary

The current dual authority issues for regulating radionuclides involve DOH's permitting requirements and Ecology's PSD reviews. With the 1990 Clean Air Act Amendments, PSD is no longer applied to radionuclides. Within the next several years, Ecology will adopt rules to implement the 1990 Clean Air Act Amendments. At that time, the regulations should be drafted to eliminate dual authority for radionuclides.

## CORRESPONDENCE DISTRIBUTION COVERSHEET

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