

NUCLEAR REGULATORY COMMISSION

PDR 3/6
[7590-01-P]

[Docket No.: 30-5337]

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AGENCY: Nuclear Regulatory Commission

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ACTION: Notice of Finding of No Significant Impact of American Cyanamid Request for Field Studies Utilizing Carbon-14

SUMMARY:

Notice is hereby given that the Nuclear Regulatory Commission has made a Finding of No Significant Impact (FONSI) with respect to the potential environmental impact related to the request by American Cyanamid to test substances labeled with Carbon-14 (C-14) by applying such substances to crops grown on a small experimental plot at its West Windsor, New Jersey facility.

SUPPLEMENTARY INFORMATION:

The American Cyanamid Company, Cyanamid Agricultural Research Division (Cyanamid) of Princeton, New Jersey holds a licensee issued by the U.S. Nuclear Regulatory Commission (NRC) for performing research and development using a variety of radioisotopes in a variety of chemical forms for plant and animal studies. Cyanamid has requested authorization to test substances labeled with C-14 by applying such substances to crops grown on a small plot of land located on its site in West Windsor Township, New Jersey. The purpose of these studies is to determine the metabolism of and residue left by agricultural chemicals. These studies are required by 40 CFR Part 158 to support the registration of a pesticide or herbicide for use on a food or feed crop under U.S. Environmental Protection Agency (EPA) requirements.

Cyanamid estimates that the maximum application of C-14 per year would be 100 millicuries. Each study takes about two years from initial application to final sampling. Following final sampling, the area is surveyed to identify residual radioactivity and removal of any remaining contaminated soil and monitoring of quarterly water samples from onsite wells for radioactivity. Radioactive soil will be disposed at a licensed disposal facility. Environmental

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radiation safety concerns include exposure of the public due to airborne releases and drinking contaminated ground water.

Cyanamid utilized a computer code (COMPLY, an EPA computer code for calculating the dose to individuals due to airborne releases) to assess radiation dose from release of radioactive material to the air. The code, using a conservative and unlikely assumption that 20 percent of the radioactivity applied is released to the air, projected an effective dose equivalent of 0.035 millirem (mrem)/year to an individual at the nearest site boundary.

To assess the radiation exposure due to groundwater contamination, Cyanamid performed dose calculations using the computer code RESRAD (a computer code developed at Argonne National Laboratory for the U.S. Department of Energy to calculate site-specific RESidual RADioactive material guidelines as well as radiation dose to a chronically exposed resident on a contaminated site). RESRAD calculated a dose of 0.15 mrem to the maximally exposed individual for the two year period from application to remediation. For the period up to 1000 years post remediation, the maximum annual dose is 3.88 mrem during year one.

NRC has reviewed the assumptions used in the above described codes and concurs with the reported results. The maximum (year one post remediation) dose of 3.88 mrem estimated by Cyanamid is well below the regulatory limit of 100 mrem per year in 10 CFR 20.1301. Cyanamid has proposed an adequate monitoring program to ensure that the parameters used in the calculations are not exceeded.

OPPORTUNITY FOR A HEARING:

The NRC hereby provides notice that this is a proceeding on an application for a license amendment falling within the scope of Subpart L "Informal Hearing Procedures for Adjudication in Materials Licensing Proceedings," of NRC's rules and practice for domestic licensing proceedings in 10 CFR Part 2. Pursuant to §2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing in accordance with §2.1205(d). A

request for a hearing must be filed within thirty (30) days of the date of the publication of this Federal Register notice.

The request for a hearing must be filed with the Office of the Secretary either:

1. By delivery to Secretary, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, between 7:45 am and 4:15 pm Federal workdays; or

2. By mail or telegram addressed to Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff.

In addition to meeting other applicable requirements of 10 CFR Part 2 of the NRC's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

1. The interest of the requester in the proceeding;
2. How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in §2.1205 (h);
3. The requester's areas of concern about the licensing activity that is the subject matter of the proceeding; and
4. The circumstance establishing that the request for a hearing is timely in accordance with §2.1205 (d).

In accordance with 10 CFR 2.1205 (f), each request for a hearing must also be served, by delivering it personally or by mail, to:

1. The applicant, American Cyanamid Company, P.O. Box 400, Princeton, NJ 08543, Attention: Mr. George W. MacDurmon; and

2. The NRC staff, by delivery to Secretary, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, between 7:45 am and 4:15

pm Federal workdays, or by mail, addressed to Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff.

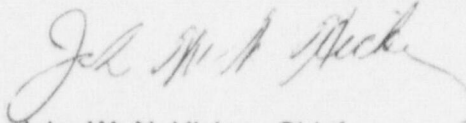
For further details with respect to this action, copies of the EA and FONSI, as well as supporting documentation, are available for inspection during normal business hours at the NRC's Region I offices located at 475 Allendale Road, King of Prussia, PA 19406. Telephone: (610) 337-5069.

FOR FURTHER INFORMATION CONTACT:

John R. McGrath, Senior Health Physicist, Division of Nuclear Materials Safety, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, PA 19406. Telephone: (610) 337-5069.

Dated at Rockville, Maryland, this 6th day of March 1996.

FOR THE NUCLEAR REGULATORY COMMISSION



John W. N. Hickey, Chief
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards