

May 23, 2005

Mr. David A. Singletary  
Singletary & Associates  
2500 Manson Av. Ste 303  
Metairie, LA 70001

SUBJECT: DISPOSAL OF RADIOACTIVE WASTE

Dear Mr. Singletary:

I am responding to your April 22, 2005, letter regarding a proposed disposal method for radioactive waste. You suggested that abandoned oil wells in southeast Louisiana might be used to dispose of radioactive materials and requested an evaluation by the Nuclear Regulatory Commission (NRC) of this proposal.

The NRC has an extensive regulatory framework designed to provide reasonable assurance that disposal of radioactive waste under the agency's jurisdiction is protective of public health and safety and the environment. For example, disposal of Class A, B, and C low-level radioactive waste in the United States currently occurs at commercially operated, near-surface disposal facilities that are licensed by either the NRC or Agreement States. Licensing requirements for these types of facilities are provided in Title 10, Code of Federal Regulations, Part 61. The requirements of 10 CFR 61 ensure that the facilities are designed, constructed, and operated to meet safety standards. As part of the licensing process, the operator of a proposed facility must extensively characterize the site on which the facility is located and analyze how the facility will perform in the future.

The NRC is unable to evaluate the feasibility of your proposal at this time without additional information. A proposal for deep well disposal of NRC-regulated radioactive waste at a specific location would be evaluated per the requirements of 10 CFR Part 20, Standards for Protection Against Radiation, as well as other applicable regulations. In particular, the regulatory provisions in 10 CFR 20.2002 require that such a proposal include:

- (a) A description of the waste containing licensed material to be disposed of, including the physical and chemical properties important to risk evaluation, and the proposed manner and conditions of waste disposal; and
- (b) An analysis and evaluation of pertinent information on the nature of the environment; and
- (c) The nature and location of other potentially affected licensed and unlicensed facilities; and
- (d) Analyses and procedures to ensure that doses are maintained as-low-as-reasonably-achievable and within the dose limits in 10 CFR 20.1301.

A proposed deep-well disposal facility should be described in sufficient detail to satisfy the

NRC's need to assess environmental impacts. In addition, pursuant to the provisions of 10 CFR 20.2007, proposals for disposal in deep wells would need to meet any other applicable Federal, State, and local government regulations. In particular, proposals may need to satisfy the U.S. Environmental Protection Agency (EPA) regulatory provisions in 40 CFR Part 146: Underground Injection Control (UIC) Program: Criteria and Standards, and an applicant may have to obtain necessary permits from EPA and/or States authorized by EPA to enforce these provisions. Additional information regarding the EPA's UIC Program can be found at [www.epa.gov/safewater/uic/index.html](http://www.epa.gov/safewater/uic/index.html). Information on the NRC's regulatory activities related to radioactive waste disposal is available on our website at [www.nrc.gov](http://www.nrc.gov).

If you have questions or require additional information, please contact Ryan Whited, Chief of the Low-Level Waste section within the Division of Waste Management and Environmental Protection, at 301-415-5135.

Sincerely,

***/RA by Mark Thaggard for/***

Scott Flanders, Deputy Director  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

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