

October 24, 2005

Mr. Ronnie Wascom, Administrator  
Office of Environmental Compliance  
Louisiana Environmental Assistance Office  
P.O. Box 4312  
Baton Rouge, LA 70821-4312

Dear Mr. Wascom:

I am responding to your informal request to have the U.S. Nuclear Regulatory Commission (NRC) evaluate, via written communication, your proposal for the *in-situ* disposal of residential smoke detectors that contain exempt quantities of Americium-241. The *in-situ* disposal comprises the in place burning and subsequent onsite disposal of the device.

Based on the unfortunate devastation that your State experienced as a result of Hurricanes Katrina and Rita, we understand that extraordinary and unprecedented measures will be taken to provide a safer environment for the public and to expedite the reconstruction and remediation of the devastated areas. We further understand that these measures may include a controlled burning of up to 200,000 residences. Since residences typically contain one or more smoke detectors, you have requested that NRC evaluate the destruction, by fire, of these detectors, followed by onsite disposal of the device residue.

The smoke detectors are designed, engineered, and tested to provide adequate assurance that public health and safety and the environment will be protected. These devices have been tested to withstand temperatures exceeding those that would be expected in the controlled residential burning. An analysis has been conducted on the disposal of these devices by incineration and burial and the results have concluded that the risk to the public and environment is minimal. Additionally, because the risk associated with these devices is minimal, they are also exempted from the disposal requirements as specified in the Code of Federal Regulations (CFR), 10 CFR Part 20. Based on the device integrity, the potential quantity of devices that may be burned and the disposal analysis, we believe the radiological hazard and risk to the public would be inconsequential.

Based on the aforementioned considerations, the NRC does support your proposal to allow the *in-situ* disposal of smoke detectors containing exempt quantities of byproduct material.

Sincerely,

**/RA/**

Martin J. Virgilio  
Deputy Executive Director for Materials, Research,  
State and Compliance Programs  
Office of the Executive Director for Operations

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