



TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF PUBLIC HEALTH  
CHRISTOPHER G. ATCHISON, DIRECTOR

February 5, 1997

Richard L. Bangart, Director  
Nuclear Regulatory Commission  
Office of State Programs  
One White Flint North  
11555 Rockville Pike, 3rd Floor  
Rockville, MD 20852

Dear Mr. Bangart:

The Iowa Department of Public Health is currently involved in an environmental situation. One of our licensees is attempting to decommission a site at which radioactive material was buried. One of the proposed alternatives is a process called "natural attenuation." Our request is twofold: 1) please provide NRC's definition of "natural attenuation;" and 2) please inform us of the site locations that have been decommissioned in NRC jurisdiction using this process.

From 1957 to 1966 the Ames Laboratory, a contractor for the Department of Energy (DOE), buried drums containing processed thorium and uranium. The burial took place on land owned by Iowa State University, a facility that is now our licensee. In 1994, an agent for DOE removed the drums and refilled the excavations.

After the removal action water analyses indicated elevated concentrations of uranium in two wells. A well almost directly over the burial area had 3000-4000 pCi/l while a second well showed approximately 20 pCi/l. This second well is approximately 260 ft from the first and 60-70 ft below it.

After gathering hydrogeologic data, DOE has indicated that it is relatively impossible to use this water as a supply. It then concludes that a combination of land use restrictions and "natural attenuation" is the most viable remedial solution.

Since the contaminant is inorganic AND radioactive, we are requesting assistance from the NRC in determining whether or not this alternative is workable as remediation.

If you have any questions, please call Dan McGhee at 515-281-7007 or me.

Sincerely,

Donald A. Flater, Chief  
Bureau of Radiological Health  
(515) 281-3478

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