From: "Robert Gallagher" <rdgallagher@nssihouston.com>
To: "Paul Goldberg" <PFG@nrc.gov>
Date: Mon, Feb 17, 2003 8:14 AM
Subject: RE: Survey on Assured Isolation Facilities

see attachment

-----Original Message-----
From: Paul Goldberg [mailto:PFG@nrc.gov]
Sent: Friday, February 14, 2003 3:46 PM
To: rdgallagher@nssihouston.com
Subject: Survey on Assured Isolation Facilities

Bob,
Thanks for your willingness to look at this and give me your responses to the questions.

Survey of Industry Interest in Development of an Assured Isolation Facility

The Nuclear Regulatory Commission directed the NRC staff to proceed with a rulemaking plan that explores interest in the assured isolation concept for the storage of low-level radioactive waste (LLW) and provides a foundation for a Commission decision on whether to develop a rule. The rulemaking plan should include Agreement State interaction and participation (SRM-SECY-02-0127, 9/5/02, ML022480322). This decision was made in conjunction with the Commission's approval of the staff's proposed response to a letter from the State of Ohio requesting NRC's views on a proposed Ohio regulation for licensing an assured isolation facility. (See 9/12/02 letter to Robert Owen, ML022560082.) Accordingly, the U.S. Nuclear Regulatory Commission staff and the Conference of Radiation Control Program Directors, Suggested State Regulations Committee on Part L, chaired by Robert Owen, State of Ohio, are jointly developing basic information on the projected need for disposal or storage of LLW and projected disposal capacity.

As an important aspect of this basic information, we are interested in knowing the extent of need for and interest in an assured isolation facility that would provide long-term, centralized storage of low-level radioactive waste, including material regulated under the Atomic Energy Act, naturally-occurring material, accelerator-produced material and technologically-enhanced material (discrete sources only for this last). The facility would be open to multiple generators. We exclude mixed radioactive and chemical waste from this inquiry. We realize that any projections for the period of ten years are very uncertain, so we would appreciate rough estimates or ranges, with any qualifications you think appropriate. For purposes of this survey, we do not define an assured isolation facility other than to describe it as an engineered facility that would provide long-term, centralized storage of LLW to multiple generators. The facility could be designated as: 1. Exclusively for storage, with no option for disposal at the AIF; 2. For storage, with the expectation of disposal of the waste at the AIF; or 3. For storage, with the option of disposing of waste at the AIF.

Company: _____NSSI _____

1. Would you be interested in developing or participating in development of an assured isolation facility (AIF), an engineered, centralized facility for long-term storage of low-level radioactive waste open to multiple generators of waste? Some proposals have included an option to convert the storage facility to disposal after an extended period of active storage operation. Please describe the extent of and reasons for your interest.

I have no interest in developing or participating in the development of an AIF. I am not convinced of the need and certainly not convinced there is sufficient waste to fill such a facility. So long as the Barnwell, Richland, and Envirocare sites continue to exist, a real need does not appear to exist. While each of these sites has it's limitations, such limitations will go away with time and enough money. At the moment Barnwell plans decreasing volumes of waste at it's facility. With the next governor and a greater need for funding, that limitation may go away. Envirocares efforts for an expanded permit will ultimately be successful with time and enough money. Secondly, based on the federal governments efforts to date, I am not convinced that the government can site such a facility before all of the waste it would be designed to store has long since decayed away. If such a facility ever gets to the planning stage, the designers should be required to design the facility for multiple uses should it no longer be needed waste storage. Such uses could include conversion to a shopping mall or entertainment park. Such secondary potential use might help sell the idea to the community chosen for the facility.

2. Do you envision a market for such a facility in the next ten years? If so, please elaborate.

If the nuclear power industry is to survive, such a facility will be needed. If no new nuclear power plants are built in the U.S. this need is limited as each of the older plants as they close will become an assured isolation facility. The medical community no longer has need of such a facility as essentially all of the radioactive materials needed are short lived and disposal can be accomplished by storage within the generating facility or at private sector storage for decay facilities. Radiotherapy continues to move toward machine generated radiation and Cobalt therapy sources move to underdeveloped countries for use until the end of their useful life. The private sector continues to move away from the use of long lived radioactive sources as a variety of electronic devices are developed for level gauging, oil well logging, smoke detection, etc.

Overall, I would have to say that the need for such a facility is very iffy and I am not sure that such a facility can ever be sited.

3. Can you provide any estimate of the amount of waste, either regionally or nationally, for which disposal capacity will not be available during this same period of time?

Iam not familiar with the volume of waste that might be generated from nuclear power plants and could not make any estimate. With respect to the medical community, I would estimate a few hundred cubic feet of volume with an activity of a few hundred curies excluding Cobalt therapy. From the Oil well logging community, 5-10000 Curies of sealed sources (primarily Cs-137). From the level gauging community, 5-10000 Curies of Co60, Cs137, and Ra226. From the soil moisture gauging community, 5-10,000 Curies of Cs-137 and mixed Cs-137/Am241Be sources. I have purposely excluded Am241, Am241Be, Pu238/Pu239 and Pu238/239Be sources that are currently being collected through the Los Alamos Source Recovery Program.