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February 19, 2004
File: 37-00030-02

United States Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406-1415

Subject: 37-00030-02 Amendment Comments

Docket # 03005980

Dear Ms. Miller:

I have reviewed the subject amendment request as published in the ADAMS data base and would like to offer the following comments, concerns and suggestions about the proposed amendment. To the extent you believe any of these items have merit, please include them in your review process.

Background

As the Project Manager on the most recent project at Safety Light and Radiation Safety Officer for Solutient Technologies, I believe I have a detailed understanding of the intended use and potential issues associated with the storage of the material in the building. The purpose of the building was to provide short-term protective storage of waste that was to be disposed, storage for archived samples and special waste. Some of these archived samples contained known RCRA waste such as elemental mercury and some are from containers that are known to be mixed waste based on profiling results. The area was never intended to be long term unattended storage for the waste.

Operational Concerns and Requested Action

Solutient identified several items to Safety Light, during the transition process, requirements that had been sufficient to protect employees, the waste and the environment during our management. The direct exposure was measured and posted per Safety Light instructions. All containers were inspected, secured, identified and labeled for disposal or storage. Containers were placed considering external exposures and security. All containers met the release criteria specified in Reg Guide 1.86 when placed in storage.

It was noted that Solutient considers a drum suspect for leaking after six (6) months of non climate controlled storage. The inventory of drums is now passing the six month time limit. This is especially true for this waste since a large amount of adsorbent was used to pack the wet material. This process is further accelerated by allowing water to collect on the tops of some drums. As the lids and bottoms rust through, the water leaking into the building and collecting on top of the drums will act as a transport mechanism to move radioactive material from the

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NMSS/RGNI MATERIALS-002

drum to the outside. This material has the potential to contaminate other drums, skids and the floor which may be released to the environment.

The plastic was never intended to provide protection from rain or snow. It was designed to reduce the contamination that would be caused by the decay radon products being deposited over time on top of the containers. To monitor this process, Solutient left a radon detector for use by Safety Light. The expectation was that Safety Light would maintain the building as a "strong tight structure" while waste stored inside. The Areas identified as 1 and 2 were indeed low activity surfaces when the waste was stored. This may have changed due to the radon decay product deposition. Area 3 was the primary processing area and should not have water leaving it. One can expect this water to be highly impacted. Additionally, the processing/storage structure was not designed to withstand exterior winds and may blow over if stressed by these winds. This would represent a significant contamination source term. Finally, the exterior skin of the building is flake board and it will fail in a wet environment.

Suggested Actions

Solutient suggests the following additional steps and actions to better protect employees, contractors and the environment.

- Surveys need to be regular, scheduled and after any significant event that could damage the system.
- The survey frequency should consider RCRA and radiological concerns.
- The building exterior should be maintained in a weather proof state.
- Any breach of the process area containment should be considered a major potential event.
- Since one of the primary concerns is radon, the Pennsylvania Bureau of Radiation Protection should either concur with or approve by separate amendment any building requirements.
- The Pennsylvania Division of Solid Waste management should be consulted for acceptable RCRA storage and inspection practices.

Should you have any questions about these items, please feel free to contact me at 330-497-5905

Sincerely,



Stephen V Prewett, PhD
Radiation Safety Officer

Cc: Robert Maiers, Pennsylvania Bureau of Radiation Protection