REED COLLEGE Portland, Oregon 97202-8199

REACTOR FACILITY

March 31, 1992

To: Phil Qualls, Reactor Inspector, NRC;
Marvin Mendonca, Senior Project Manager, NRC
From: Paul Terdal, Associate Director, Reed Reactor Facility
Re: Amendments to Recovery Plan

Attached is a completed copy of the Amendments to the Recovery Plan. Aside from correcting some typographical errors, the only major change is in the section on setting the alarm and failsafe setpoints for the CAM and APM.

As you had pointed out, the flow rate of 6.5 CFM was not really 7.8×10^6 ml/min, but 1.8×10^5ml/min, or 3000 ml/s. This, of course, radically changes the alarm and failsafe setpoints, such that they are now even lower than before. Those equations were, of course, written very conservatively. Although the CAM and APM sample in the Reactor Facility, or in the stack were materials leave the reactor, the action levels in the Emergency Plan really refer to the Site Boundary, 250 feet away. This means that we could take dispersion into account if we chose to, as we did with the GSM. Also, the action levels are based on the assumption that the amount of material released is averaged over 24 hours. With the GSM, we assumed that after an hour of release the facility would be shut down, limiting the amount of additional material released.

We propose to alleviate this problem by assuming that any release will be a 1 hour release averaged over 24 hours, as we have done with the GSM. Since the reactor will be shutdown if the Failsafe condition is released, this is not unreasonable. This is still quite conservative, since it neglects dispersion.

If you have any additional comments or questions, please contact either Michael Pollock or myself at (503)777-7222.

Sincerely,

Paul Terdal
Associate Director, Reed Reactor Facility

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