

Comments for Review of NuMI Hadron Absorber

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from

-----Jim Kilmer-----

1. Overall Remarks

I would say that the Hadron absorber is well advanced in the design process and don't see any show stoppers. The schedule seems tight but doable. The materials handling looks to be in good shape.

2. Itemized suggestions, questions and concerns

- a. I am nervous about the absorber welds in restricted space. I went to see Ernie's test . I thought that the test allowed the welder to unconsciously use vision space that is not available for real. Additionally he could weld this joint on the bench. In the field he may be on his back trying to do it. At least in the schedule ½ day per weld is allowed. If one of these welds leaked it could be very difficult to fix.
- b. I did the same calculation as Alan on the life of a battery charge for the Lazer forklift. It seems clear that from time to time they will have to change a battery in the middle of the day instead of just charging it at night. Much more attention needs to be paid to this operation after the fork truck is here. Typically these battery changes are much more than ½ hour jobs, and always are filled with extra hazards like the battery acid, and maneuvering the heavy batteries. Special rigging will probably have to be designed to facilitate this job.
- c. Dave mentioned that a leaking pipe to a module would not be repaired but abandoned in place. To do this the pipes would be cut loose from the headers and plugged. Drain valves in each of the headers might facilitate this job by having a graceful way to remove the (mildly?) radioactive water from headers and modules only and not have to drain the entire system.
- d. If any extra money becomes available, I would suggest buying the Mini-lift crane and setting it up early so people can get familiar with it's operation.