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**DOE-FEMP HAMILTON CO HAZARDOUS WASTE
(OHIO EPA COMMENTS ON THE STORED
WASTE AUTONOMOUS INSPECTOR ROBOT
FIELD TRIAL WORK PLAN)**

03/16/94

**OEPA/DOE-FN
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COMMENTS**



State of Ohio Environmental Protection Agency

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George V. Voinovich
Governor

March 16, 1994

Re: DOE-FEMP
HAMILTON COUNTY
HAZARDOUS WASTE

Mr. Jack R. Craig
Fernald Remedial Action Project Manager
P.O. Box 398705
Cincinnati, Ohio 45239-8705

Dear Mr. Craig:

Find below Ohio EPA's comments regarding the Stored Waste Autonomous Inspector (SWAMI) Robot Field Trial Work Plan.

1. DOE must be careful when assessing SWAMI's abilities by comparing SWAMI results with those of current inspections, unless the accuracy of current inspections are assessed as well. SWAMI might meet your criteria of detecting 100% of the Category A drums found by current inspectors, but if the current inspector only identified 50% of the actual Category A drums, SWAMI's performance (and that of the inspector) is inadequate.
2. Proposed tests describe SWAMI's ability in detecting Category A, B, and C drums. There appears to be no tests planned to demonstrate SWAMI's accuracy in detecting Type I, II and III leakers. This seems to be the more critical of the two criteria since these involve drums that have leaked or will leak their contents.
3. It is unclear how SWAMI will detect the following situations:
 - a. Corrosion/dents on the bottom and/or top of the drums.
 - b. Leakage from the "back" of drums.
4. It appears that SWAMI would rely mainly on the radiation detection to detect leaked material in those situations where the leak itself is undetectable to the vision system (i.e., bottom of drum). If this is the case, it must be ensured that SWAMI's detector is sensitive enough to detect leaked waste from all sources. In other words, DOE must be sure that all hazardous waste in storage is a mixed waste that emits radiation at levels that will trigger SWAMI's rad detector.

(SHROFF(B))
Action Response to
R-0875
(7492)

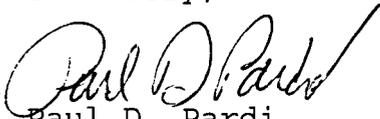
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5. The safety features described for SWAMI do not include whether the robot is intrinsically safe. This must be a consideration if SWAMI will be used to inspect drums of ignitable waste.

Please call me at (513) 285-6357 if you have any questions regarding these comments.

Sincerely,



Paul D. Pardi
Group Leader
Division of Hazardous Waste Management

PDP/mlf