The authors are to be commended for completing the plant. The trying circumstances of changing contractors, funding and project officers make the professionalism and dedication of everyone involved all the more apparent.

To date, the mobile incinerator has burned oil. These tests only serve to show that the equipment has been properly fabricated. The oil burning tests neither provide evidence that hazardous wastes will be destroyed, nor demonstrate that the hardware will have an acceptable commercial lifetime.

The authors propose to prove the system by following a test plan that will use oil seeded with various substances. The test design does not contain any replicated tests in which a specific waste is burned on two or more separate occasions so that the similarity and generality of the results can be confirmed. While repeated measurements taken during an individual test run will provide interesting information on the precision of the analytic instrumentation, only true replicates can provide information concerning the repeatability of the incinerator’s performance when burning materials day after day.

I also note that the proposed test plan does not deal with the incineration of contaminated solids and sludges. Since the equipment has been designed to burn these materials, should not its ability to safely fire these waste materials be verified?

AUTHORS’ REPLY

The fuel oil tests have proven that the prototype system can achieve and maintain the design operating conditions that were selected based upon the federal requirements for the destruction of PCB’s. Demonstration of an acceptable commercial lifetime will not be possible until the system is operated continuously in the field; demonstrations cannot be initiated until all required hazardous and toxic waste incineration applications are approved.

Replicating tests on different days were not considered because of the number of tests being conducted with different concentrations of the same material. Since the setup and sampling time for one sample will take about five hours, a long day of testing is anticipated. Conducting the number of tests proposed should provide sufficient data on the system operation over a period of several days and varying conditions.

As was commented, the Mobile Incineration System has been designed and constructed to process contaminated solids, liquids, and sludges. The Trail Burn Plan was designed concurrently with the construction of the system; however, at the time the plan was designed, the availability of funding for required ancillary feedstock (solids/sludges), sizing, and conveying equipment was not certain. Therefore, permit applications were prepared and submitted for liquids only.

I would like to thank you for the comments on the Mobile Incineration project.

(It should be noted that three consecutive samples will be taken during each test that incorporates hazardous and toxic substances.)