A NEW DEVELOPMENT FOR FIRE PROTECTION OF CARGO CONTAINERS

Harry E. Stewart
Powsus, Inc.
3120 North A1A #1403
Ft. Pierce, FL 34949 USA

Using a gelled gas/powder combination similar to that successfully employed as a "drop-in'' for Halon 1301 in "potty bottles" and for Halon 1211 in FAA "hidden fire" tests, Powsus, Inc., has inserted the gelled agent, *Envirogel*, in lightweight plastic tubing, which ruptures when touched by flame or reaches a predetermined heat. The filled tubing is being inserted in Fedex hazardous material cargo containers and tested on Class A and B fires in consultation with FAA and Fedex engineers. The Fedex containers are of various sizes ranging from about 570 to 201 ft^3. The tests are designed to put out fires with equivalent or less agent than halon in each of the three available sizes. For example, in the 427 ft^3 container, the charged weight of the presently used halon apparatus including canister and tubing is 21 lbs 13 oz containing 14 lbs of Halon 1211. The present halon containing apparatus must be activated manually by the pilot. The 3/4 in i.d. plastic tubes weigh less than the canister and the weight of the agent is less than 14 lbs. So far, the new apparatus has been able to extinguish both Class A and B fires with a fire-kill equivalent to halon. The tubing ruptured automatically when it reached a specified heat or was touched by flame. The agent used is gelled ammonium poly phosphate and FE-36 by DuPont. The project is ongoing at the time of this meeting with "testing to failure" still to be accomplished.

A copy of the 9-minute VHS video, "The Fedex Tests," is available from the author (address above); tel: 561-460-8729; fax: 561-460-8730; e-mail: 753-0094@mcimail.wm.