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Cover Photo:

The photograph shows a steel I-beam section, coated with a plastic fire protection material, being inserted into Avco Systems Division's unique subscale fire simulation chamber during a test to determine the effectiveness of the coating. The coating is a relatively thin (0.2 to 0.4 in.), weatherable, tough, intumescent epoxy which is designed to provide one to two h performance time for structural steel when tested according to the ASTM Fire Tests of Building Construction and Materials (E 119–71). The fire chamber conditions have been preset to simulate a fully developed large volume fire in terms of temperature and heat flux. The I-beam section is instrumented with thermocouples which are used in recording the temperature-time history of the specimen throughout the fire test. The test about to be conducted represents a "worst case" situation, that is, a sudden flash fire exposure of maximum magnitude. In this issue of the *Journal of Testing and Evaluation*, D. P. Crowley, F. L. Tempesta, G. K. Castle, E. B. Belason, and L. J. D'Avanzo discuss on pp. 363–368 the subscale fire test facilities which have been developed for evaluating the thermal response of material test specimens exposed to a variety of fire conditions. The photograph was taken by Avco's David Hoyt.