

Reference

WORKCOVER AUTHORITY



CERTIFICATION

**AREA COVERAGE TEST (UL 1058) FOR
MAG-1, MAG-2 AND MAG-3 GENERATORS**

Mag-1, Mag-2 and Mag-3 generators (containing 60 g, 100 g and 200 g aerosol generating composition respectively) were subjected to the "Area Coverage Test" of the Underwriters Laboratories standard UL 1058 in 0.52 m³, 1.03 m³ and 2.07 m³ enclosures respectively. The average aerosol concentration in the enclosure (based solely on the amount of aerosol producing composition in the generator) was between 97 - 115 g.m⁻³ for all the tests.

The generators were tested as manual extinguisher units.

The test results are summarised below.

Mag-1 Generator:

A Mag-1 generator mounted on the floor of a 0.85 m wide x 0.715 m deep x 0.85 m high enclosure complied with the UL 1058 standard as a manual extinguisher unit. The average aerosol concentration in the enclosure was 115 g.m⁻³.

Mag-2 Generator:

A Mag-2 generator mounted on the floor of a 0.85 m wide x 1.43 m deep x 0.85 m high enclosure complied with the UL 1058 standard as a manual extinguisher unit. The average aerosol concentration in the enclosure was 97 g.m⁻³.

Mag-3 Generator:

A Mag-3 generator mounted on the floor of a 0.85 m wide x 2.86 m deep x 0.85 m high enclosure complied with the UL 1058 standard as a manual extinguisher unit. The average aerosol concentration in the enclosure was 97 g.m⁻³.

Dr A. R. Green
Coordinator, Fire & Explosion Unit

Dr V. B. Apte
Testing Officer
Engineer, Fire & Explosion Unit

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File: di - BYTNT / 1
Contact: Jeffrey J. Everitt (03)647 6950

Mr Leo Peek
Bytenet Holdings
Unit 7
80 Kitchener Parade
BANKSTOWN 2200 NSW

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FEAS Extinguishing System - Confirmation of Compliance of MAG-1, MAG-2 and MAG-3 with Requirements of UL1058 Area Coverage Test

This is to confirm that SSL has examined a DRAFT of Test Report No. TR 11575 issued July 1994 by Workcover Authority's Londonderry N.S.W. Occupational Safety Centre (LOSC) laboratories, which covers four (4) tests done on three (3) models of FEAS Aerosol Extinguisher System "generator" units submitted by Fire Division of Bytenet Holdings Pty Ltd..

Two of the above tests, namely RTEST2 and RTEST3 were witnessed by SSL on Friday 20 May, 1994.

SSL hereby confirms that the results of tests numbers RTEST3, RTEST4 and RTEST5 show that, in the tested configurations described below, FEAS generator models MAG-1, MAG-2 and MAG-3 are able to comply with the requirements of UL1058 Clause 32 Area Coverage Test for non-automatic extinguishing equipment when tested in the enclosure configurations described below (refer also to Table 1 below).

However, SSL wishes it to be understood that, unless the manufacturer's published installation instructions included with the supplied equipment specifies that the equipment is not to be installed in a less-favourable configuration than that successfully tested to UL1058 Clause 32 and, if the equipment is not installed within that limitation, no guarantee of extinguishing effectiveness can be given.

SSL also wishes to confirm that the above FEAS systems are currently undergoing SSL Appraisal as part of a Listing programme, and that data relating to some aspects of performance and Quality Assurance of the above FEAS systems are yet to be submitted and Appraised.

In particular, SSL-required data relating to extinguishing agent spatial distribution, in the test enclosure configurations to be described in future SSL Listing details, has not yet been submitted.

TABLE 1

LOSC Test No.	FEAS model	Charge Mass Grams	Enclosure Volume cub. m	Enclosure Dimensions HxWxL (mm)
RTEST3	MAG-3	200	2.07	850x850 x2860
RTEST4	MAG-2	100	1.03	850x850 x1430
RTEST5	MAG-1	60	0.52	850x850 x520

As specified in the UL1058 Clause 32, a 165 mm wide vertical full-height baffle was included in each enclosure and located at the centre of symmetry, the plane of the baffle being parallel to the planes of the 850 x 850 walls of the enclosure. In each case, the cylindrical-shaped single-ended FEAS generator was mounted on the floor of the enclosure, with its axis of symmetry horizontal and parallel to, and midway between, the "long" sides of the enclosure. The discharge end of the generator was, in each case, parallel to and facing the baffle, and located midway between the baffle and an 850 x 850 wall of the enclosure. The UL1058-specified heptane test fires were located on the floor of the enclosure in each case.

It should be particularly noted that the above tests are not considered to represent the "most disadvantageous" configuration of application for the respective FEAS models because, in each case, the aerosol generator was mounted in the lowest possible location and on the same level as the heptane fires (SSL regards the "most disadvantageous" configuration to be with the heptane fires on the floor and the FEAS generator mounted on the ceiling soffit).

Yours faithfully,

Jeffrey J. Everitt
Engineer - Appraisal & Listing