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Mr. H. Floetotto
Sauerlaender Spanplatten GmbH
5760 Arnsberg 2
West Germany.

9th October 1987

Dear Sirs,

Fire Assessment FAS 222

We refer to your telex of 24th September 1987 requesting assessment of a change of detail in doors previously tested in accordance with BS 476: Part 8: 1972.

Doors were tested in accordance with BS476: Part 8: 1972 on 17th November 1986, TRADA reference FR1052. Two single leaf single action doorsets were tested, one fitted with intumescent seals the other without seals. The leaves were each of size 1980mm high by 762mm wide and 44mm thick. They achieved the following fire resistance performance ratings:

	Stability	Integrity	Insulation
Door with seals	39 minutes	38 minutes	34 minutes
Door without seals	37 minutes	29 minutes	29 minutes

The tested doors comprised a 38mm tubular chipboard core within a softwood perimeter frame. The chipboard was designated type RB. It is proposed that this chipboard be replaced by another type designated type RK. The relevant differences between the two are listed below:

	Type RB	Type RK
Thickness (mm)	38	38
Weight (kg/m^2)	11.7	11.3
Density (including holes) (kg/m^3)	308	298
Density (chipboard component only) (kg/m^3)	520	520
Tube System	40P 25mm	50P 26mm 17P 16mm 2P 18mm
Lock block	Dowelled with 100mm dowels	350mm semi-solid across door

The base material is therefore identical, the differences being in the size of holes, an increase from 25mm diameter to 26mm diameter, and in the detail at the lock position. In the construction tested a lock block was formed by fitting the 25mm diameter holes with 100mm softwood dowels. The proposed arrangement with the type RK core is to have reduced diameter holes across the full width of the leaf for a depth of 350mm.

When tested the doors had a good margin of pass. Some distortion of the doors took place but this was not excessive. Some scorching on the unexposed face occurred from 35 minutes but this did not cause any further integrity failure to the end of the test. Potentially the 1mm increase in core hole diameter could cause burn through to occur earlier but in our opinion this would not be before 30 minutes. It is unlikely that distortion would be increased but again the margin of pass was such that a small increase could be tolerated. It is not considered that the changed arrangement at the lock position would materially affect the performance.

It is our opinion that if the door construction modified as discussed above were to be tested in accordance with BS476: Part 8: 1972 it would achieve minimum fire resistance performance ratings of 30 minutes in respect of stability and integrity with intumescent seals and 20 minutes without seals. All details not specifically referred to above to be as previously tested or as included in addendum to report FR1052 which is still deemed to be valid. retrospectively. The assessment is valid initially for a period of two years from the date of issue after which time it is recommended that it be submitted to TRADA for reappraisal.

We trust the above meets with your requirements.

Yours faithfully,

R. J. WILLIAMS
Manager
Fire Test Section
TECHNOLOGY DEPARTMENT