HANDLÄGGARE, DIREKTVALSNR
Per Rohlén, 08-696 70 57
E-POST, MOBILTEL
per.rohlen@sfv.se
0706-78 87 10

Fire Protection at the building site National Property Board Sweden

The risk of fire is statistically 30 times greater at a building site than in the regular work place. The most common fire cause is related to ”hot work” – welding, cutting using a circular saw, handling of open flame and work associated with spontaneous combustion of oils, such as floor oils.

A fire occurring during construction can represent a risk of complete building damage because existing fire walls are removed and new openings in construction made etc. The result is an uncontrolled fire and smoke spread throughout the building.

SFV have created routines dealing with

- the elimination of fire causes,
- early detection of fire and
- limiting damage created by fires.

Fire protection design documentation during construction

A fire protection design document must be created for all new construction and remodeling of buildings to outline what fire protective measures are required after finished construction.
Corresponding fire protection design documentation should be created for the construction phase – hence text and design drawings that depict how fire protection shall be maintained during construction.
The documentation shall entail:

- sectional drawings,
- escape routes,
- storage of containers
- fire equipment,
- way of initiating alarm,
- spaces protected by automatic construction site fire alarm,
- emergency services access road,
- routines for ”Hot Work” and the usage of spontaneous combustible oils, such as floor oil etc.

The fire protection design documentation can be used during daily routine follow-ups of fire safety including the whole construction phase – “systematic fire protection approach” (abbreviated in Swedish “SBA”). It is of great importance that the basis of the documentation is adjusted to conform to the progression of the construction process.

Construction site fire alarm

A rapidly detected fire allows a quick fire department response resulting in minor building damage.
The ordinary automatic fire alarm (smoke detectors) is often disconnected during construction. During new construction the automatic fire alarm is often connected at a late stage in the construction process.
Operating problems are often a concern during the construction process when dusts ”interfere” and obstruct smoke detectors.
A suitable solution can be a *Madamm*. *Madamm* is a mobile air sampling (aspirating) fire alarm i.e. the equipment draws air via 2 x 50 m long hollow plastic tubes and analyzes the air inside a smoke detector. The equipment has a built-in filter, which eliminates construction site dusts.

The alarm can be connected to SOS via cellular phone.

Air sampling construction site fire alarm – MADAMM

The equipment is switched on at the end of the day and is turned off during daytime. It is also possible to turn off the fire alarm transmitter dispatch during daytime so that only the construction site will receive the alarm.
The fire alarm can be rented or purchased and when construction is finished at one location the equipment can be moved to another site.
The fire department has access to drawings and contact persons for buildings and has been oriented around the site.

Fire protective sectioning

In many cases, buildings are divided into several fire compartments. One or several of these fire compartments/firewalls can normally be used during the construction phase if temporary fire seals are created. Openings can be sealed using gypsum and rock wool, provisional doors can be put into place, and special openings for construction site electricity and water etc. can be arranged so that existing doors can be closed.

POSTADRESS Box 2263 103 16 Stockholm
GATUADRESS Packhusgränd 7 Stockholm
TELEFON(VX) 08-696 70 00
TELEFAX 08-696 70 01
sfv@sfv.se www.sfv.se

It is of great importance that personnel are kept informed about their function and that the fire-sectioned walls are inspected regularly - preferable at the end of every day.
The ”evening-routines” shall include an inspection that all fire compartments are kept intact, fire section doors are closed, and that the fire alarm is activated.
Functioning fire compartmentalizations allow the fire department a better advantage of finding the seat of the fire and rapidly extinguish it. It is a vast difference of performing fire department operations inside smoke filled building, demanding additional resources, compared to searching a much smaller part of the entire building.

Per Rohlén National Property Board Sweden SFV

POSTADRESS Box 2263 103 16 Stockholm
GATUADRESS Packhusgränd 7 Stockholm
TELEFON(VX) 08-696 70 00
TELEFAX 08-696 70 01
sfv@sfv.se www.sfv.se