

LESSONS LEARNT: Extractor Flue Near Miss

Location: Medway – Sheerness – Warehouse 6

When: 19/04/2023



Event Description

During high winds, an aluminium Local Exhaust Ventilation (L.E.V) extractor flue broke its mounting from the side of a warehouse building, tore at a joint in the flue and fell into the pedestrian walkway below (See Image 1).

The dislodged flue pipe had initially extended above the eaves of the warehouse and was exposed to the prevailing wind.

There were no injuries caused, nor were there any personnel on the walkway at the time the flue collapsed, however the circumstances could have been much worse.

The damage was subsequently reported and investigated.

Immediate/Direct Cause

The upper securing bracket detached from the cladding

Basic / Contributory Factors

- One of the sheet screws was missing from the bracket (See Image 2)
- Movement of the flue over time had elongated the fixing holes enough for the cladding screws to work loose
- The flue was not installed to the requirements of British Standard BS 5440, namely securing brackets were not spaced at intervals of no greater than 1.8m
- Gusting wind speeds on the day measured 32mph

Key Lessons

The L.E.V system (including the flue) was being inspected and maintained under a L.E.V thorough examination scheme and not as part of a standard maintenance regime, as such the flue itself was inspected for performance but not the fixings which attached it to the warehouse cladding.

Subsequently all flues have all been inspected and had further securing brackets installed and at the correct spacings as per the British Standard.

A local maintenance programme in addition to the thorough examination has been created to ensure the safety of the flues are maintained.

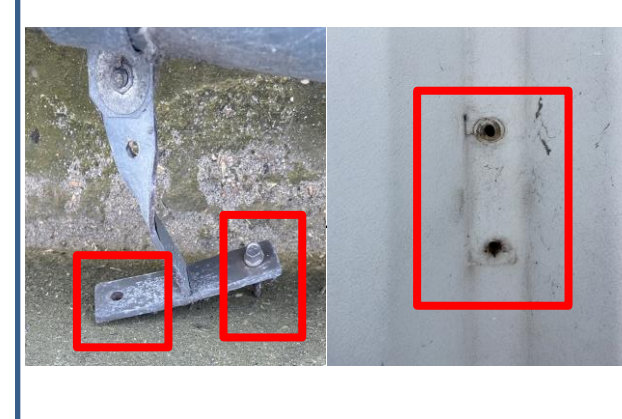
Please consider any flue systems in operation in your areas of control.

Photos/Images

Image 1



Image 2



SAFETY BULLETIN

Ref No: SB-009-2023

Date: 15 June 2023

Subject: Extractor flue near miss

Bulletin detail

This bulletin relates to a lessons learnt notice kindly shared by Peel Ports Group.

This incident relates to a flue pipe not having the correct number of supports fitted. The original document has been attached for reference.

In addition, users / owners of steel-clad portal buildings need to consider the strength and integrity of the steel sheeting and tek screws.

Portal building manufacturers recommend unsupported tek screws are used only to join sheets and flashing. When fixing additions to the building, the structural needs of the support also require assessment and the loadings need to pass through the external cladding to the structure. Some lightweight hardware, such as gutters and downpipes tek screws, used at regular intervals through the cladding and into the structure, may also need to be considered.

PSS Safety Bulletins

The PSS Safety Bulletin process intends to share information with our members relating to new developments or changes in the industry which may be of interest. These Safety Bulletins are in addition to PSS Safety Alerts which relate to a specific accident or incident and the related learning outcomes which may help members prevent a repeat event.