

# Toolbox Talk

## Fragile Roofs : Cold Stores



### What?

- All persons involved in roof work need to be aware of the risks presented by a roof being or that may become fragile
- Composite panels, also known as sandwich panels, are a popular construction material consisting of an insulation core sandwiched between two metal or plastic facings
- In case studies, it has been found that panel weights can increase up to 30 times their original values just by virtue of prolonged exposure to adverse elements

### Why?

- A common problem within the cold storage industry is the degradation of the insulation sandwich panels, which form the cold storage envelope
- The ceiling panels will increase in weight and lose their structural integrity and strength (normally via delamination). Given that the ceiling panels will inevitably incur occasional maintenance foot traffic (and in some cases frequent traffic) and must be designed to accommodate these loads, this results in a very dangerous situation. Furthermore, ceiling panel collapse can lead to disastrous consequences to the operatives within the coldstore
- The increased weight of the panels will impose larger loads on the steel structure, often taking the structure beyond its design limits
- When planning work activities on composite panels reference any site inspection reports to ascertain the age and condition of the panels

### Do



- ✓ Reference any site inspection reports on the age and condition of panels
- ✓ Avoid working on panels if the work can be done some other way
- ✓ Carry out Point of Work Risk Assessment prior to work on any roof being started
- ✓ Make sure you select the right equipment for the task
- ✓ Check the equipment for damage or defects before use
- ✓ Make sure you are trained to handle it properly and check it before use
- ✓ Report any damage to panels or equipment used

### Don't



- ✗ Start work without knowing the Safe Working Load of the panels
- ✗ Work near leading edges
- ✗ Work without the proper equipment
- ✗ 'Climb' the structure, always use a ladder
- ✗ Use defective equipment
- ✗ Forget to secure ladders properly
- ✗ Work without the correct Permit
- ✗ Forget to leave the roof of the cold store tidy when you finish