Mines Safety Significant Incident Report No. 159

Fall through grid mesh floor — fatal accident

Incident

While erecting structural steelwork, an experienced tradesperson fell about 10 metres through a grid mesh floor and died from the injuries sustained.

Installation of the grid mesh floor had not been completed and sections of grid mesh were not secured in place. An area adjacent to sections of mesh had been left open to allow for the installation of additional steel work. It appears that one section of grid mesh was able to move towards the opening and away from supporting steelwork at the opposite end. The accident occurred while the deceased was moving about on this part of the grid mesh floor — the section of mesh slid off the support steelwork at one end and fell to the ground.

The accident occurred during the hours of darkness and the work area was illuminated from below by lighting towers.

Immediate causes and contributory factors

- The hazard posed by the unsecured grid mesh sections had not been properly identified, barricaded or otherwise controlled.
- Installation of the grid mesh floor was incomplete and sections of mesh had not been fixed with either permanent or temporary fastening devices.
- The presence of the opening and a floor slope of 5 degrees allowed a section of mesh to move and become unsupported.
- Lighting of the area from below caused limited visibility at floor level.
- It was the first night shift and first time the workgroup had worked at that location, and group members were unfamiliar with the area.
- The workgroup's attention was focused on the installation of overhead steelwork.

Comments and preventative actions

Section 9 of the *Mines Safety and Inspection Act 1994* prescribes that the employer at a mine must provide and maintain workplaces, plant and systems of work such that employees are not exposed to hazards.

To prevent a recurrence of this type of incident, the following preventative actions should be considered.

- Grid mesh floors should be installed in accordance with safe work procedures based on risk assessment and manufacturers' recommendations.
- Persons engaged to install grid mesh floor should be trained in the procedure and wear appropriate personal fall restraint equipment when necessary.
- Sections of grid mesh should be secured in place as soon as practicable after being placed in position.
- Unsecured grid mesh can be extremely hazardous. It should be properly barricaded and sign-posted at all access points to the floor and below to warn of the danger posed.

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- If identified as an issue during a risk assessment, arrange for employees to familiarise themselves with potential hazards in a new work area during daylight hours.
- Construction work should be supervised to ensure employees work safely. Effective supervision takes time and includes conducting a shift handover (which may necessitate a walk-round inspection) and communicating the presence of any hazards to the oncoming shift in verbal and, if necessary, written forms.
- Responsible persons should arrange for existing grid mesh floors to be checked to ensure sections of mesh are not damaged, missing or unsecured.

Information relating to a similar accident can be found in *Safety and Health Alert 07/09, Worker fatally injured in fall from grid mesh panel walkway*, issued by WorkSafe WA and available from the publications section at www.commerce.wa.gov.au/worksafe

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