WHAT HAPPENED?

A welder was carrying out maintenance on an excavator bucket. He was using an angle grinder to prepare surfaces for welding when the disk disintegrated. The hand-held angle grinder was fitted with a 230 mm diameter cutting-off wheel and when it disintegrated, fragments penetrated the victim's chest and abdomen. He was rushed to hospital by rescue helicopter but died the same day.

WHAT CAUSED IT?

Initial inspections show that the grinding machine and cutting disk were not compatible. In addition, the grinder was not fitted with a guard.

CORRECTIVE ACTIONS:

Grinding machines and abrasive wheels should always be used in accordance with the manufacturer's instructions. In particular:

- Always ensure the maximum speed (the no load rpm) marked on the abrasive wheel is greater than the rated speed of the grinder.
- Do not use grinding wheels that are larger than the maximum recommended size, or worn down wheels from other grinders.
- Never use grinding wheel power tools without the wheel guard attached to the tool and positioned for maximum safety.
- Store and handle abrasive wheels with care and inspect them for chips or cracks before installing. Do not use any wheel that may be damaged.
- Cutting disks should only be used for cutting only and not for grinding purposes.
- Training on 'safe use of grinding machines' to be provided to all personnel using this equipment.

RELEVANT LEGISLATION:

- Driven Machinery Regulation 8 – Grinding Machines