SKANSKA

Further information:
Skanska AB
www.skanska.com
+44 7748 933038
Contact:
Neil Moore
neil.moore@skanska.co.uk

Global Safety Stand Down (GSSD)
Briefing for worksites

1. Everyone will be brought together in work groups and this briefing sheet for worksites and lessons learnt from the investigation is read out.
2. There should then be a minutes silence in respect of the deceased and their family.
3. Discussions should then take place about the implications for the worksite from the lessons learned based on discussion points in the worksite briefing sheet.

GSSD #7: 2011
Struck by moving object

London, UK
Skanska UK
Date of Accident: October 21
Name of Deceased: Shaun Maslin
Age: 44
Family: Partner, 4 year old daughter, 15 year old step son and 18 year old step daughter.

Background information
In 2004 Skanska UK and National Grid Gas (NGG) formed an Alliance (North London gas Alliance) to replace 400KM (250 miles) per annum of existing low and medium pressure gas main over an extensive area of London and the south east of England. As well as being an Alliance partner NGG is also the Client. The Alliance is fully integrated with Skanska and NGG staff working alongside one another working to NGG operational and safety standards. These require that the method of working, risk assessments and permissions for the work to start are under the control of an Authorized Engineer who is an experienced qualified gas industry specialist.

Incident
A three man sub contractor team from SM Plant Ltd led by Shaun Maslin were to pressure test an existing section of 24inch (600 mm) steel gas main. The pressure test was being undertaken in an excavation which was 2m deep, 2m wide and 8.5m long (6ft by 6ft by 25ft).

Shaun Maslin and another operative were in the excavation at the time of the incident. A third operative was on site assisting in the operations. The compressed air for the test was provided by a compressor, placed 15m (50ft) away. The ends of the steel pipe were sealed by temporary end caps. The end cap which blew off measured 700mm (2ft 3in) in diameter and weighed approximately 100kg (220lb). The end cap was held in place by a compression collar which provided a gas seal, but is not sufficient to hold the end cap in place under pressure. This was done by a 3.3m (10ft) long wooden strut, placed between the end cap and the new section of pipe.

During the pressure test there was an air leak, to locate the leak detection fluid was being applied to one of the end caps. To apply the leak detection fluid around the edge of the end cap Shaun Maslin stood in close proximity to the end cap. Shaun requested that his team mate retrieve spanners from the works vehicle. Whilst the team were waiting for the spanners to be returned the wooden strut failed and Shaun was struck by the end cap as it was blown off the pipe. The end cap traveled 15m (50ft) before it came to rest. The trench support system was severely damaged by it as if flew from one end of the excavation to the other.

Shaun Maslin died at the scene despite attempts to save him by his colleagues and paramedics. The second person suffered no physical injuries, this despite being in close proximity to the end cap when it blew off.

Causes of accident

The Alliance's own engineering standards and safety procedures were not followed.
This includes:

1. A site specific hazard assessment including a written test procedure was not produced for the pressure test.
2. The anchorage system was not designed or constructed in accordance with established design standards.
3. The safe system of work and required standard for the pressure test was not discussed or briefed to the whole team.
4. The team leader (Shaun Maslin) did not have the full qualification to undertake work on large diameter gas mains.
5. The work post construction and prior to the pressure testing was not inspected or supervised by Alliance staff.
6. The team were not provided with a design from which to construct the anchorage system in accordance with established design standards.

Conclusions

The anchorage system was not designed in accordance with the engineering standards. This resulted in the temporary supports and the materials used to prevent the end cap blowing off during the test not being constructed in accordance with NGG (Gas industry) standards and subsequently failed during the pressure testing.

Actions

Both Skanska UK and NGG are investigating the incident. Skanska UK has commenced a series of reviews and actions to further investigate the arrangements for managing compliance with existing standards and the health and safety culture of the Alliance. These reviews relate not only to the arrangements within the Alliance, but also Skanska's own businesses where similar activities are undertaken. These include:

- Undertake an audit and review of application of standards for pressure testing and requirement for support systems across Skanska UK. Including electrical and water.
- Undertake an independent audit of the work undertaken on the Alliance to assess the culture and perception of H&S and engineering compliance.
- Review competency assessment scheme and method for assessing, confirming and monitoring individual competencies.
- Undertake a review of sub contracting arrangements and sub-sub contracting. Including audit and inspection on site to confirm arrangements.
- Re brief all staff and subcontract staff on the requirements for pressure testing and anchorage.
- Review current arrangements for control of gas operations to ensure procedures are complied with. Including attendance by the authorizing engineer on site during pressure test.
- Consider the implications of the findings from action point 1 and 2 on other Skanska UK work activities.
- Review of anchorage, support system and pressure testing methodology against current available technology.

Discussion points

- This is another example of what was considered a routine work activity for this workteam going wrong because known rules and procedures were not followed.
  - **How often do you review the safety hazards for your routine work activities to ensure that you and your colleagues are working safely?**
- On this project as in Peru Skanska is working to the client's safety rules and procedures.
  - **When we are working to the client's safety rules or those of a joint venture partner, are we sure that they meet or are better than the Skanska rules?**
- We often have accidents where craft workers are working in an unsafe situation but do not challenge their supervisors/managers or stop work. Possibly because they do not feel they have the power to do so.
  - **Are you sure at your workplace that everyone believes they will get the support of management if they stop work because they feel it is unsafe to continue? Do you have examples?**

Signed off by NeM