

When : July 14th,2009, 14:00 pm.

Location: Bathroom in the lodging house

Description :

- The water pipeline in the bathroom of a lodging house was to be renewed due to corrosion. New holes in the wall needed to be drilled for this purpose. The drilling was planned to be done inside the bathroom by using a hammer drill with two contractors.
- Although they noticed that one of the drill braces was broken, they started to work. While drilling one of the holes, the hammer drill got stuck in the wall. The contractor lost control and the drill's body started to rotate and hit operator's chin.
- Eventually contractor received cut at his chin. The plant nurse applied the first aid and the contractor was sent to hospital for further control. Four stitches applied. No further treatment required.



The missing brace

Direction of rotation when the drill gets stuck

Root Cause Analysis

RC 1: Lack of Skill or Knowledge

- **Insufficient hazard identification** and personal risk assessment resulted in underestimating workplace risks.
 - The drill brace was broken and the operators noticed it. They thought that they could manage the drilling safely although they identified the risk.
 - When the contractors came to drill the hole under the wash basin, only one contractor could hold the drill. Therefore, the initial control measures were no longer valid, and another SPSA should have been done.
 - The broken drill brace should have been reported by the previous users but not reported.

RC 2: Correct way takes more time / requires more effort

- **The operators should have stopped the work** when they identified that the drill brace was broken.
 - The contractor company is responsible of keeping tools & equipments at proper condition as stated in the contract and in the procedures
 - The contractor employees should have informed their supervisors rather than creating their own solutions.

Corrective Actions

- Refresher Training for all maintenance contractors on Maintenance Tools Work Instruction focusing on related hazards and equipment standards. (July 09-done)
- Refresher Training for all operators on the importance of reporting any broken or inappropriate equipment, tool, machinery etc. (August 09-done)
- The contractor company will also investigate the incident and will share the conclusions they reach (such as disciplinary actions, further improvements, etc.) (August 2009)
- Implement periodic inspection and maintenance program for energized maintenance tools & equipment. Support this program by posting visual aids in the field reminding operators the importance of reporting any broken or inappropriate equipment, tool, machinery etc. (July 09-done)
- Start implementing Contractor Buddy Management Program immediately for this contractor, especially to emphasize tracking and improving SHE performances of their technicians (September 2009 vs. initially 2009 YE)

Lessons Learned / Recommendations

- **Hazard Awareness** should be a focus area enhancing the identification of workplace hazards (incl. failure to timely reporting of faulty tools & equipments), and line of fire risks.
- Periodic inspection and maintenance program for maintenance tools & equipment should help early identification of faulty tools & equipments.