



## **OSHA RECORDABLE INCIDENT BULLETIN**



### **Impact Wrench Injury 5/18/2011**

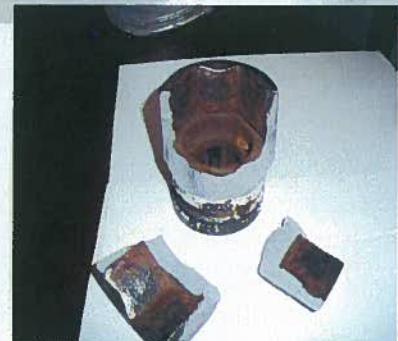
On Wed., May 18th, a Boilermaker working on the KHT Turnaround suffered an injury to his teeth and face while impacting bolts on the channel head of an exchanger.

#### **INJURY DETAILS:**

**Location:** Complex 4

**Events:** While using a one inch drive Ingersoll Rand Impact Wrench with a 1 13/16" socket to tighten the bolts on the channel head of an exchanger, the socket fractured causing the tool to "kick back" striking the employee in the face. The employee received a contusion to the lips and gums, lost one tooth, and chipped/loosened several others. The employee was wearing a face shield at the time which likely prevented a much more serious injury. **The resulting injury was a recordable injury resulting in a lost tooth and chipped/loosened teeth.**

**Causes:** Upon inspection of the socket apparent indications of stress cracks were found. It appears that earlier stress cracks propagated and broke the socket causing it to break into three separate pieces. The impact likely "kicked back" the tool striking the employees face shield and subsequently his face causing the injury. The wrench was rated for 90 PSI but was connected to a compressor which was supplying 135 PSI, which may have contributed to the incident as well. More details will be available after a more thorough investigation.



#### **Lessons Learned:**

- Ensure JSA/STAs are completed in detail and cover all aspects of the work scope. Focus on the unexpected. Use **S.L.A.M. Stop, Look, Analyze, Mitigate** while evaluating the task to be performed.
- Stop to recognize the hazards associated with body position, line of fire, and pinch points.
- Only operate tools and equipment at their rated operation limits and review all operating instructions before using any tool if available. If you are unfamiliar with the tool, do not use it.
- Be aware of potential "kick back" should the tool or attachment break or become pinched. (i.e. saws, grinders, drills.)
- Recognize the potential hazards associated with work being performed. Perform a daily detailed inspection of all equipment to be used.