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October 31, 2006

"The Employer"

The Chief Compliance Officer is writing in response to the employer's e-mail dated October 26, 2006 requesting a deviation from Section 278(1) of the General Regulation 91-191 under the *Occupational Health and Safety Act.* More specifically, what the employer is requesting is a deviation from Section 278(1) to enable hot tapping and related welding work at the employer's premises.

Section 278(1) of Regulation 91-191 requires that flammable and explosive substances be drained from the containers before heat is applied to the container. In addition, Section 279(1)(b) states "*An employer shall ensure that welding, cutting, burning or soldering operation is not undertaken on a container or pipe … containing … explosive and flammable substances*".

To support the employer's request, the employer has provided a Design Work Sheet that indicates the following:

Justification

14" fill line on Tank has thinning below ASME B31.3 Code minimum wall thickness and must be repaired. An environmental spill may result. It is not practical to completely drain this line. The repair can be accomplished safely without personnel risk.

Technical Background

Pre-inspection UT to verify wall thickness is above 0.25" on all main nozzles complete.

Safe Hot Tapping Practices in the Petroleum and Petrochemical Industry reviewed.

Job analysis flow sheet determined this method of repair.

Burn through prevention mitigated by using 3/32 1718 rod.

- Piping P1 to P1 weld, min wall to be 0.25" to be able to weld hot; 6.2.

- 14" Sch 40 piping wall is .438 per Crane Technical paper.

- The employer's Welding procedure to be used.

- Low – hydrogen E7018 3/32 electrode on A106-A516 Gr70 P1-P1

Post inspection of all welds is required.

Welding with qualified welder F4-license

Welding with flow line per operation procedure

Safety Requirements

Flow in all pipe lines
Nomax Coveralls and PPE on workers
Fire blankets below and around piping and at least two fire extinguishers
Fire Monitors poised, “extinguishing equipment”
Communication with Control Room via two-way radios/cell phone
Hot work permit – that has fire watch requirements
Tail Board Form completed
Equipment and Material and Practices meet safety codes
Staff to be competent in all procedures
MSDS reviewed
Cordon off area with red tape while work is in progress
Advise WHSCC staff when this repair is to take place

Installation of patch on tank 14”Fill line

1. Pre fabricate a 14” pipe patch of A516 Gr 70 material per sketch below;
2. On two ¼ sections of A516 patch, Machine area for 1: pipe penetration. Each section of pipe patch to have a ¼-18 NPT tapped port, “tell-tail”, and port in each section for leakage indication.
3. As per operational procedure; “ensure flow is occurring in pipe being welded”, position and weld surface area as required.
4. Inspect this weld via UT or PT.
5. Install ¼-18 NPT plug in each of the three ports of the 14” pipe patch.
6. Check these plugs semi-annually for leaks until this 14” spool piece is replaced.

In addition, the employer indicated to the Chief Compliance Officer during a phone conversation on October 26th, 2006, that a qualified welder F4-Licence issued by Technical Inspection Services Branch-Province of New Brunswick was to carry out the work described above.

As a result of the information provided, a deviation from Section 278(1) of Regulation 91-191 under the *Occupational Health & Safety Act* is granted for welding on the Tank to repair a 14” spool piece fill line with the following conditions, some of which the employer has provided for in the employer’s procedure:

1. The Health & Safety Staff must take part in the planning and execution of hot tapping. It may also be appropriate to involve the Joint Health & Safety Committee as well.
2. A safe and easy access and egress must be provided from the work location for the hot tapping crew, including an alternate means for emergency evacuation.
3. Staff performing the hot tapping operation must be competent in all of the procedures involved in the process, including emergency and evacuation procedures.
4. The equipment and material involved in the process must meet the appropriate safety codes and standards including those outlined in the API Recommended Practice.
5. The MSDS’s for the pipe/tank contents including temperatures and pressures of the vessels to be hot tapped must be reviewed with the staff involved in the operation.
6. Appropriate protective clothing must be provided and worn by the staff performing the operation.

7. A means of communication must be established between the hot tapping crew and the emergency response staff.
8. Fire watch and extinguishing equipment must be available in the work area.
9. A means of shutting off power locally must be available.
10. Personnel working in the areas of hot tapping must be notified of the type of work being undertaken and advised of the appropriate emergency procedures.

By copy of this letter, the Chief Compliance Officer has advised WHSCC staff of the decision.

Regards,

Chief Compliance Officer