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| Standard Operating Procedure Coupons | SOP No. 7.024 |
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Revision No.: 9

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- 1 Purpose
 - 1.1 To establish how often weld coupons are generated and when submission to the Quality Control Examiner (QCE) for approval is necessary.
- 2 Scope
 - 2.1 This procedure applies to both high-purity stainless steel piping, and tool hookup assemblies.
- 3 Responsibility
 - 3.1 The Therma general foreman manages the welders and verifies compliance with this procedure.
 - 3.2 Qualified welders, certified under SOP 7.009 (GTAW Welder Qualification) are responsible for performing and documenting the following procedures.
- 4 Procedures
 - 4.1 Each coupon is labeled and recorded as per SOP 5.005 (GTAW Welds).
 - 4.2 Weld coupons are used to establish a record of the welding parameters that have been performed using a GTAW orbital welding machine.
 - 4.3 Coupons are generated to establish valid welding parameters for the orbital weld machines as per SOP 5.024 (Weld Program).
 - 4.4 Coupons are made when the following conditions occur or change while operating a GTAW orbital welding machine:
 - 4.4.1 At the beginning of each shift.
 - 4.4.2 When weld heads are changed.
 - 4.4.3 When new purge gas source is used.
 - 4.4.4 When power source is interrupted.

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4.4.5 Change in tube diameter.

4.4.6 Welder discretion and/or wall thickness.

4.4.7 At the end of each shift.

4.4.8 On a Closure Weld.

4.4.8.1 When a weld cannot be examined via borescope due to configuration limitations, an opening coupon shall be made and examined by QCE to ensure that the weld head characteristics are within welding acceptance criteria. After the open coupon is made, welder shall proceed to make a weld. After the weld is made, a closing coupon shall be made and examined by QCE. Then, the closure weld is done.

4.5 Notify QCE and submit coupons to QCE under the following conditions:

4.5.1 To establish valid welding parameters configuration program.

4.5.2 To establish a visual record for QCE's reference. If project's scope of work requires to submit coupon to customer, QCE will save the coupon(s) and submit it to customer after the project is complete.

5 Review and Approval

5.1 The Therma QCE shall examine the coupon as prescribed in SOP 7.005 (Automatic GTAW Weld Examination).

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Document Approval



 Process Systems Manager

3-6-12

 Date



 Engineering Manager

3/06/12

 Date



 Quality Assurance Manager

3/6/12

 Date

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