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RECORD OF REVISIONS

Rev	Date	Description	POC	OIC
0	8/16/04	Initial issue.	Kelly Bingham, <i>FWO-DECS</i>	Gurinder Grewal, <i>FWO-DO</i>
1	10/27/06	Administrative changes only. Organization and contract reference updates from LANS transition. IMP and ISD number changes based on new Conduct of Engineering IMP 341. Other administrative changes.	Kelly Bingham, <i>FM&E-DES</i>	Kirk Christensen, <i>CENG</i>

Contact the Welding Standards POC for upkeep, interpretation, and variance issues

GWS 1-07	<u>Welding POC/Committee</u>
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GWS 1-07 MATERIAL SPECIFICATIONS

1.0 PURPOSE AND SCOPE

- A. The purpose of this GWS is to provide data for selection and use of filler materials and establish specification requirements for shielding and purge gases in support of LANL welding activities.
- B. The scope of this section is applicable to welding activities performed under the LANL Welding Standards.

2.0 REFERENCES

- 1. Acceptable AWS Prequalified Materials
- 2. ASME Section IX Material Grouping P-Numbers

3.0 ACRONYMS AND DEFINITIONS

Acronym/ Term	Description
SFA	AWS A5.XX series Filler Material Specification that has been officially adopted by ASME B&PV Code

4.0 GENERAL

4.1 Responsibilities

- A. The assigned LANL Facility, Program, Project Manager, SSS₂ or authorized designee is responsible for selecting consumable welding and brazing materials in accordance with applicable engineering specifications, reference codes and standards, the appropriate qualified Welding Procedure Specification (WPS), Welding Fabrication Procedure (WFP), Welding Technique Sheet (WTS), and this procedure.

5.0 GUIDANCE

- A. Weld and brazing filler materials acceptable for use under the LANL Welding Program are listed in Attachment 1 (Requirements for Welding Filler Materials) of this procedure. All filler materials used in production welding shall be selected in accordance with the applicable Welding Procedure Specification (WPS), Welding Fabrication Procedure (WFP), or Welding Technique Sheet (WTS).
- B. Attachment 2 - (ASME Section IX Material Grouping P-Numbers) provides a listing of pre-qualified materials for use with AWS Welding Fabrication Procedures contained in Volume 2 of the LANL Welding Standards Chapter.

- C. Materials identified in Attachment 2 are listed by ASME Section IX material P number grouping. Materials used in construction with ASME requirements shall comply with the applicable Welding Procedure Specification (WPS), Welding Fabrication Procedure (WFP), or Welding Technique Sheet (WTS) and Attachment 2 (ASME Section IX Material Grouping P-Numbers). Materials listed in Attachment 3 (Acceptable API Filler Material) are also applicable for welding to API standards and other welding procedure applications not otherwise listed in this procedure.
- D. Attachment 3 - (Acceptable API Filler Material) provides a listing of qualified materials for use with API welding procedures contained in Volume 2 Welding Fabrication Procedures (WFP) of the LANL Welding Standards Manual.
- E. Attachment 4 - establishes the requirements for purity, and dew point and composition of welding Gases
- F. Materials to be used for welding which are not listed in the attachments to this procedure shall be referred to LANL WPA for approval.

6.0 ATTACHMENTS

Attachment 1: Requirements for Welding Filler Materials

Attachment 2: ASME Section IX Material Grouping P-Numbers

Attachment 3: Acceptable API Filler Material (for API Construction)