

Prepared By: Engineering Staff Approved By: Jerome T. Schmitz

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CORROSION CONTROL MATERIALS

Modular Wall & Casing Seals

1. SCOPE

This specification defines the minimum requirements for materials, application and inspection of modular wall and casing seals used to provide a fluid-tight and electrically insulated seal between the carrier pipe and casing, and where the pipe enters and exits vaults.

2. APPLICABLE DOCUMENTS

2.1 United States Department of Transportation (DOT), Code of Federal Regulations (CFR), title 49, Part 192, "Transportation of Natural and Other Gas by Pipeline' Minimum Safety Standards."

NOTE: Unless otherwise specified, the editions of the above documents incorporated by DOT 49. CER 193 are applicable. Documents not

incorporated by DOT 49, CFR 192 are applicable. Documents not incorporated by DOT 49, CFR 192 will be the most recent edition.

3. TERMINOLOGY

3.1 General

- 3.1.1 "Southwest Gas," "Southwest" or "SWG" wherever used in this specification and other related documents will refer exclusively to Southwest Gas Corporation.
- 3.1.2 The terms "approved," "as approved," "satisfactory," "as directed," "or equal" or other similar terms wherever used in this specification and other related documents will mean "as determined by Southwest Gas," unless specifically stated otherwise.
- 3.1.3 "Product Information Package" or "PIP" wherever used in this specification and other related documents will mean the required information that a manufacturer must submit to SWG to determine if the product is suitable for use by SWG, unless specifically stated otherwise.



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4. MATERIALS AND MANUFACTURING

- 4.1 The modular seal shall be designed to wrap around the existing carrier pipe and fit into the annular space between the pipe and casing or hole through which it passes.
- 4.2 The pressure plate shall be glass reinforced nylon plastic for electrical insulation.
- 4.3 The bolt and nut shall be low carbon steel, zinc galvanized/plated or stainless steel to resist normal corrosion.
- 4.4 The sealing element shall be DPDM rubber for general service in water, moist environments and normal atmospheric conditions.

5. PERFORMANCE REQUIREMENTS

The seal shall be so designed that by tightening a series of bolts, elongated pressure plates compress synthetic rubber links which expand to form a continuous, air-tight, fluid-tight seal between the carrier pipe and the casing or hole.

6. DIMENSIONS AND TOLERANCES

The seal shall be designed to allow for minor offsets or movement of the pipe within the casing or hole.

7. INSPECTION

- 7.1 Successful review of the Product Information Package (PIP), as well as any future reference by SWG to the Seller's part number or internal code number in any future contract or purchase, will mean only that no conflict with the specification was found and will not relieve the Seller from meeting all the requirements of this specification.
- 7.2 SWG retains the option to inspect the manufacture and testing of any and all materials, products or systems referenced in this specification that are sold to SWG.

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7. INSPECTION (Cont'd)

- 7.3 SWG will make appropriate inspections and tests of any and all materials, products or systems supplied to this specification. SWG will have the right, at their option, to reject any material which fails to conform to this specification. Any such rejection may take place at the manufacturer facility; the supplier's warehouse or any subsequent delivery location, before or after SWG assumes possession. Notice of the rejection will be made promptly to the supplier by SWG. The rejection will be made promptly to the supplier by SWG. The defective product will be replaced or returned for credit at the manufacturer's expense.
- 7.4 Any changes in the manufacturing of previously approved Graphite Anode covered under this specification for sale to SWG must be approved by SWG's Engineering Staff. Failure to obtain SWG's approval may be cause for rejection and disqualification as an approved supplier.

8. CERTIFICATION

The manufacturer's or supplier's certification shall be furnished to Southwest. This certification shall state that samples representing each lot have been manufactured, tested and inspected in accordance with this specification and that requirements have been met. When requested or specified in the purchase order or contract, a report of test results will be provided.

Upon the request of Southwest, the certification of an independent third party indicating conformance to the specification may be considered at Southwest's expense.

9. SAFETY DATA SHEETS

In accordance with law, the Seller will supply Safety Data Sheets for all applicable items supplied under this specification to the following:

- 1) The Receiving Location
- 2) Engineering Staff
- 3) Southwest Gas Corporation Corporate Safety Mail Station LVA-120 P.O. Box 98510 Las Vegas, NV 89193-8510



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10. PRODUCT MARKING

The material shall be marked with the manufacturer's name or trademark.

11. PACKAGING AND PACKAGE MARKING

All products covered in this specification will be packaged to prevent damage during shipping.

12. STOCK CLASS DESCRIPTION

SEAL, MODULAR INDIVIDUAL, FOR CASING ONE PIPE SIZE LARGER THAN CARRIER PIPE, MODEL NUMBER
SEAL, MODULAR INDIVIDUAL, FOR CASING TWO PIPE SIZES LARGER THAN CARRIER PIPE, MODEL NUMBER
SEAL, MODULAR INDIVIDUAL, FOR CASING THREE PIPE SIZES LARGER THAN CARRIER PIPE, MODEL NUMBER $__$.
SEAL, MODULAR INDIVIDUAL, WITH CENTERING BLOCK FOR PIPE TWO SIZES LARGER THAN CARRIER PIPE, MODEL NUMBER
SEAL, MODULAR INDIVIDUAL WITH CENTERING BLOCK FOR PIPE THREE SIZES LARGER THAN CARRIER PIPE, MODEL NUMBER