

Interoffice Memorandum

TO (Name and Location)	Engineering Personnel	DATE	8-28-78
FROM (Name and Location)	C. F. Hall	REFERENCE NO.	ED78-514-CFH

cc: T. L. Markham
G. W. Siegelin
M. A. John

Subject: Orifice Flange Gaskets

The Bishop Plant basically has used two types of gaskets: compressed asbestos ring gaskets for low pressure steam and low press/temp processes, and the spiral-wound asbestos filled gasket for steam, 150# and up, and high press/temp process service. The Gasket Material Specifications are in the process of being revised. Until issued, please follow the 1969 revision in your plant standards and the recommendation in this letter in regard to orifice flange gaskets.

This was prompted by problems encountered because asbestos ring gaskets were being used in orifice flange service when the proper choice should have been the spiral-wound (Flexitallic) gasket. Asbestos ring gaskets were being used because the Flexitallic gasket had failed on occasion in orifice flanges.

There is no problem with the Flexitallic gasket in orifice flange service with proper orifice plate finish. The problem is attributed to the smooth surface on the orifice plate. The American Gas Association and the American Petroleum Institute specifies that orifice plate surface roughness is not to exceed 50 microinches and 80 microinches, respectively. Flexitallic recommends nothing smoother than 80 microinches be used for adequate sealing. The gasket can either extrude or creep in cases where the surface is extremely smooth.

The Bay City Plant had similar problems in 1976 and remedied the situation by following the same recommendation presented here---All seating surfaces on orifice plates should have a 125 microinch concentric or phonographic groove finish.

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