

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

TVC
50-269
50-270
50-287

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

July 1, 1980

JUL 7 9:41

TELEPHONE AREA 704
373-4000

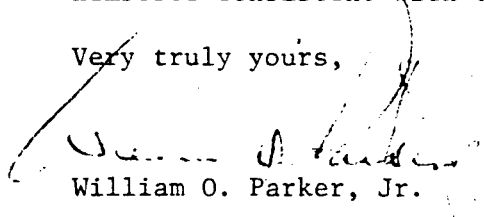
Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: RII:JPO
50-269
50-270
50-287

Dear Mr. O'Reilly:

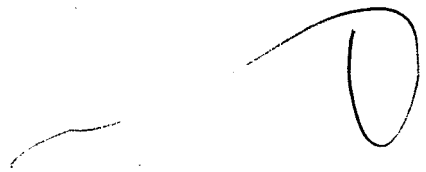
With regard to your letter of April 7, 1980 which transmitted IE Bulletin 80-08, please find attached a response for Oconee Nuclear Station. The responses are numbered consistent with the actions required by the Bulletin.

Very truly yours,


William O. Parker, Jr.

RLG:scs
Attachment

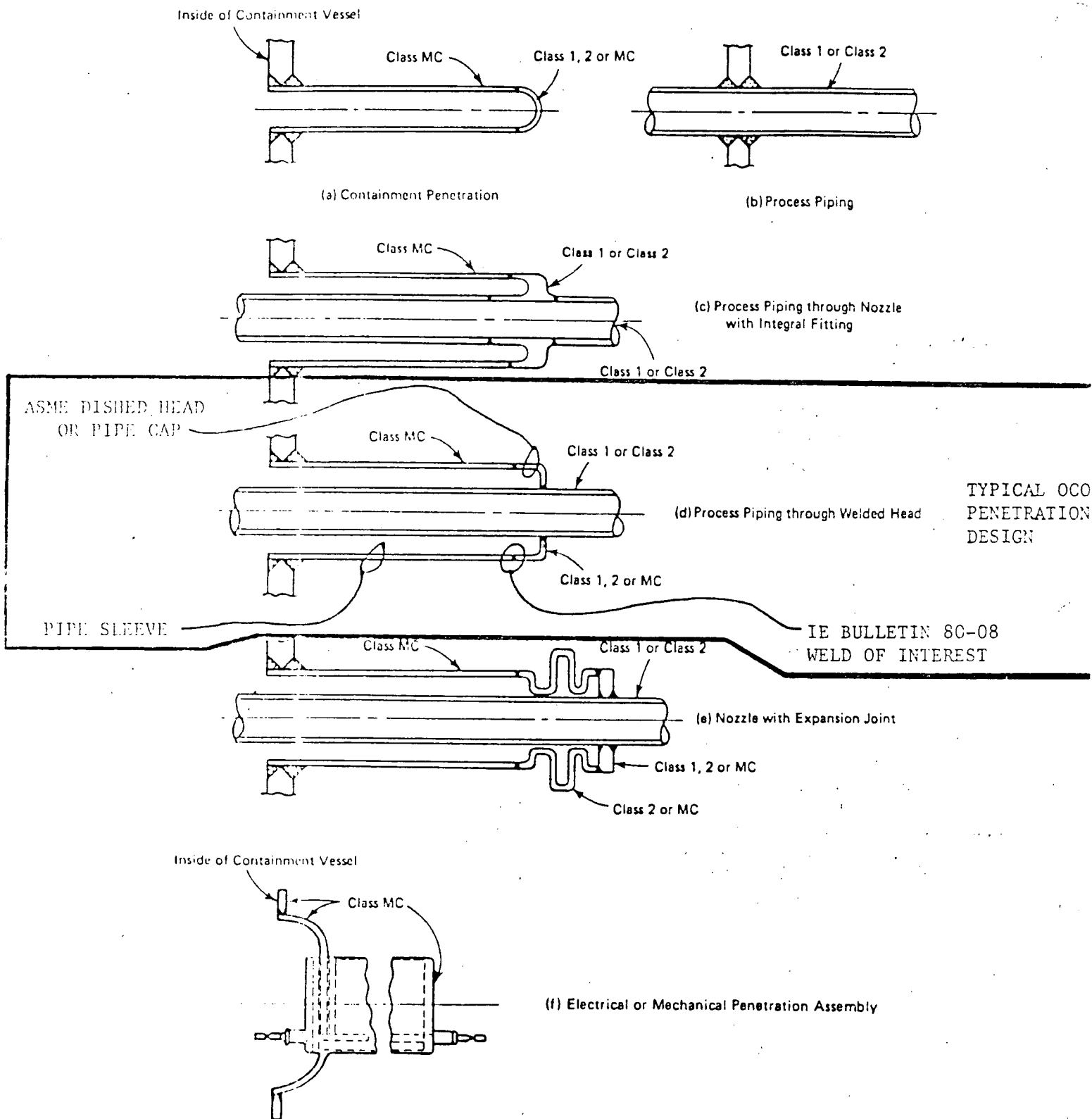
cc: Director
Division of Reactor Construction Inspection
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



8007220245

Q

ORIGINAL COPY



Note: Class Designation Shall Be Given in the Design Specification

FIG. NE-1120-1 TYPICAL CONTAINMENT PENETRATIONS

POOR ORIGINAL

DUKE POWER COMPANY
OCONEE NUCLEAR STATION

Response to IE Bulletin 80-08

1. Although Oconee did not utilize the typical flued head type design for piping penetrations, there are welds similar to those of NRC concern throughout the plant. The typical Oconee design is made up of a short pipe sleeve which welds to a liner plate anchor ring and to an ASME dished head. This design is close coupled to the extent that the penetration design serves as an anchor for the piping which is welded to the dished head as it passes through it. This is illustrated in Figure NE 1120-1, example (d), Process Piping Through Welded Head (Attachment 2).
2. As Oconee has containment boundary butt welds of interest, the following supplemental information is provided:
 - a) ASME Code, Section III, Subsection B, 1965, Winter '66 Addenda applies to the Oconee penetration design, construction, inspection and testing.
 - b) For the Oconee Nuclear Station the weld identified on Attachment No. 2 was performed by the vendor furnishing the penetration and containment liner plate. Review of vendor supplied drawings and documentation confirms these were full penetration welds which received 100% radiography prior to shipment from the vendor's shops.
 - c) The vendor's weld joint design was a typical $37\frac{1}{2}$ degree bevel piping butt weld and backing bars were utilized for these welds. Materials of construction were as follows for pipe sleeve and adjoining ASME dished head or pipe caps for varying sizes between 12" and 60" nominal O.D:
 - i) Forgings conforming to ASTM A-350, Grade LF2, except that the impact specimens shall be of the Charpy V-notch type and shall meet the requirements of Paragraph N-1211 (a) of Section III of the ASME Code at a test temperature of 0°F.
 - ii) Seamless pipe conforming to ASTM A-333, Grade 6, except that the impact specimens shall be of the Charpy V-notch type and shall meet the requirements of Paragraph N-1211 (a) of Section III of the ASME Code at a test temperature of 0°F.
 - iii) Welded pipe conforming to ASTM A-155, except that the steel plate shall be ASTM A-516, Grade 70, Firebox Quality and ASTM A-300. Impact tests shall be performed on Charpy V-notch specimens and shall meet the requirements of Paragraph N-1211 (a) of Section III of the ASME Code for both plate and welds at a test temperature of 0°F.
 - iv) Fittings conforming to ASTM A-234, Grade WPB tested to ASTM A-300, except that the impact specimens shall be of the Charpy V-notch type and shall meet the requirements of Paragraph N-1211 (a) of Section III of the ASME Code at a test temperature of 0°F.

- d) The results of vendor non-destructive examinations, including repair records, for radiography performed on the welds of IE Bulletin 80-08 interest were furnished to Duke Power. Extent of repairs required in the shop have been reviewed with results as tabulated below:
- i) There are about 53 penetrations per station unit similar to the one of IE Bulletin 80-08 interest.
 - ii) 53% of all welds of interest did not require any weld repairs.
 - iii) 41% of all welds of interest required 5 or less weld repairs.
 - iv) Only 6% of all welds of interest required more than 5 weld repairs.
 - v) All weld defects except one were classified as an "inclusion." One repair was required for "cracking."
3. Although the Oconee Nuclear Station did not commit during Construction to perform volumetric examination of penetration welds through SAR commitments, such examination was achieved by meeting the requirements of the applicable codes and standards. Further examination at this time are not warranted as the design met all requirements of ASME, ANSI B31.1 and ANSI B31.7 in effect during the Oconee construction period.