

JUL -3 '84 0267225

Hope Creek Generating Station

Use of Code Case N-192

(Compliance with the additional requirements  
of Regulatory Guide 1.84)

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TABLE OF CONTENTS

- 1.0 INTRODUCTION
- 2.0 DISCUSSION
- 3.0 ATTACHMENTS
  - 4.1 General Design Requirements for Nuclear Service Flexible Metal Hoses for the Hope Creek Generating Station
  - 4.2 CR 434, Revision D, Documentation of Compliance for MBC P/N 73989.
  - 4.3 CR 364, Revision A, Report, Hose Assembly, Flexible Metal Instrumentation
  - 4.4 CR 431, December 23, 1977, Stress Report for MBC P/N 73989
  - 4.5 CR 709, Revision B, Design Report
  - 4.6 CR 710, Revision A, Documentation of Compliance
  - 4.7 CR 719, Revision B, Design Report
  - 4.8 CR 720, Revision A, Documentation of Compliance

## INTRODUCTION

Regulatory Guide 1.84 states, "Code Case N-192 is acceptable subject to the following conditions in addition to those conditions specified in the Code Case: The applicant should indicate system application, design and operating pressure, and pressure-temperature rating of the flexible hose. Data to demonstrate compliance of the flexible hose with NC/ND-3649, particularly NC/ND-3649.4(e), are required to be furnished with the application." Submittal of this report to the NRC is intended to satisfy these additional regulatory requirements for the Hope Creek Generating Station.

## DISCUSSION

ASME Code Case N-192 provides the design guidance for the fabrication of flexible hose connections. Flexible connects complying with Code Case N-192 are used at HCGS on instrument impulse lines and on the standby diesel generator (SDG) skids. Attachments 4.1 through 4.8 were compiled to demonstrate compliance with Paragraph NC/ND-3649 of the ASME Code. Attachments 4.1 through 4.4 apply to those connectors on the instrument lines and Attachments 4.5 through 4.8 apply to the skid-to-facility connectors on the SDGS.

JUL -3 '84 0267225

41

General Design Requirements for Nuclear Service  
Flexible Metal Hoses for the Hope Creek Generating  
Station

- 1) Hoses shall be designed, manufactured, examined, tested, stamped and documented in accordance with the Code.
- 2) Pressure boundary items are defined as including flexible metal bellows or tubes, end tubes and adaptors. The external flexible wire braid may act as an axial pressure thrust restraint and provide columnar stability against squirm.
- 3) Design pressure and temperature shall be 2500 psig and 700°F respectively. The ranges of process fluid temperatures and pressures are 31°F to 575°F and atmospheric to 1250 psig, respectively.
- 4) Design motion shall be 5 inches in any one direction and return to installed position for 850 design cycles.
- 5) Hoses shall be marked to show the direction of flow if applicable.