DOCKET FILE

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 9, 1990

Docket Nos. 50-280
and 50-281

LICENSEE: Virginia Electric and Power Company

FACILITIES: Surry Power Station, Units 1 & 2

SUBJECT: MEETING SUMMARY OF JUNE 28, 1990

A meeting was held with representatives of Virginia Electric and Power Company (VEPCO) in Rockville, Maryland on June 28, 1990. The purpose of the meeting was to discuss planned modifications to the component cooling water (CCW) piping to mitigate the consequences of a reactor coolant pump thermal barrier tube leak. The meeting handout and a list of attendees are enclosed.

VEPCO representatives discussed various design options they had evaluated, and concluded that, based on long-term maintenance, ALARA, and cost considerations the modifications as shown on Figure 2 of the meeting handout was the most practical approach to resolve this concern. The current CCW piping configuration is shown on Figure 1 of the handout. The section of piping of interest consists of two high pressure check valves to prevent backflow, a safety valve set at 2500 psig located upstream of the reactor coolant pump and an isolation valve that will automatically close should the normal CCW flowrate of 40 gallons per minute (gpm) increase to 50 gpm. Other means are available in the CCW System, such as CCW temperature and radiation monitors to alert plant personnel of thermal barrier leakage.

The proposed changes as shown on Figure 2 consist of replacing the existing containment isolation valve located outside containment with a 1500 lb. valve and installing another 1500 lb. containment isolation valve and a local, manually operated 1500 lb. block valve inside containment. In addition to the two aforementioned automatic containment isolation valves closing on containment hi-hi pressure, they will also close on a high CCW flowrate signal. The emergency operating procedures will be revised to address this accident scenario. In response to NRC staff questions the licensee will inform the NRC how they will address post-LOCA thermal expansion between the two new automatic containment isolation valves which has the potential to result in unacceptably high pressures between these two closed valves. VEPCO was also asked to advise the NRC staff if the two new containment isolation valves and associated new piping are being designed to current regulatory requirements or to the original plant licensing basis. Because of long lead times associated with the procurement of the new valves and instrumentation, these modifications will not be completed until the Cycle 11 refueling outage, currently scheduled for the first quarter of 1992.

FOI '11

Memo

The NRC staff agreed that VEPCO's design approach and implementation schedule appeared reasonable.

Original signed by

Bart C. Buckley, Project Manager
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. List of Attendees
2. Meeting Handout

cc w/enclosures:
See next page

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NRC & Local PDRs
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OFC	:LA:PDII-2	:PM:PDII-2	:D:PDII-2	:	:	:
NAME	:DMiller	:BBuckley	:HBerkow	:	:	:
DATE	:07/6/90	:07/6/90	:07/9/90	:	:	:

OFFICIAL RECORD COPY Document Name: MEETING SUMMARY 6/28/90

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Enclosure 1

MEETING WITH SURRY AND NRC STAFF

REGARDING COMPONENT COOLING WATER (CCW)

June 28, 1990

NRC	VEPCO
B. Buckley	D. Sommers
G. Belisle (RII)	B. Benthall
J. Pulsipher	E. Grecheck
B. LeFave	G. Nash
	T. Shaub

VIRGINIA POWER

COMPONENT COOLING
THERMAL BARRIER MEETING
JUNE 28,1990

PROPOSED MODIFICATION AND BASIS

- SIX OPTIONS INVESTIGATED
  - MITIGATION OF EVENT
  - MAINTAIN REACTOR COOLANT WITHIN CONFINES OF CONTAINMENT
  - ALARA CONSIDERATIONS - INSTALLATION/MAINTENANCE
  - COSTS

PROPOSED MODIFICATION AND BASIS

- SELECTED OPTION
  - NONSAFETY TRIP VALVE
  - ANALYZED PIPING
  - REDUNDANT SAFETY-RELATED TRIP VALVES AT CONTAINMENT PENETRATION
- BASIS FOR SELECTED OPTION
  - CONTAINMENT ISOLATION ARRANGEMENT
  - INSTRUMENT LOOP DESIGN
  - PIPING DESIGN

CURRENT SYSTEM CONFIGURATION

- RCP THERMAL BARRIER UPSTREAM CC SYSTEM DESIGN
- RCP THERMAL BARRIER DOWNSTREAM CC SYSTEM DESIGN
- ADMINISTRATIVE
  - PERIODIC TESTING
  - PROCEDURES

IMPLEMENTATION SCHEDULES

- DESIGN CHANGE PACKAGES
- DELIVERY OF ENGINEERED EQUIPMENT
- INSTALLATION

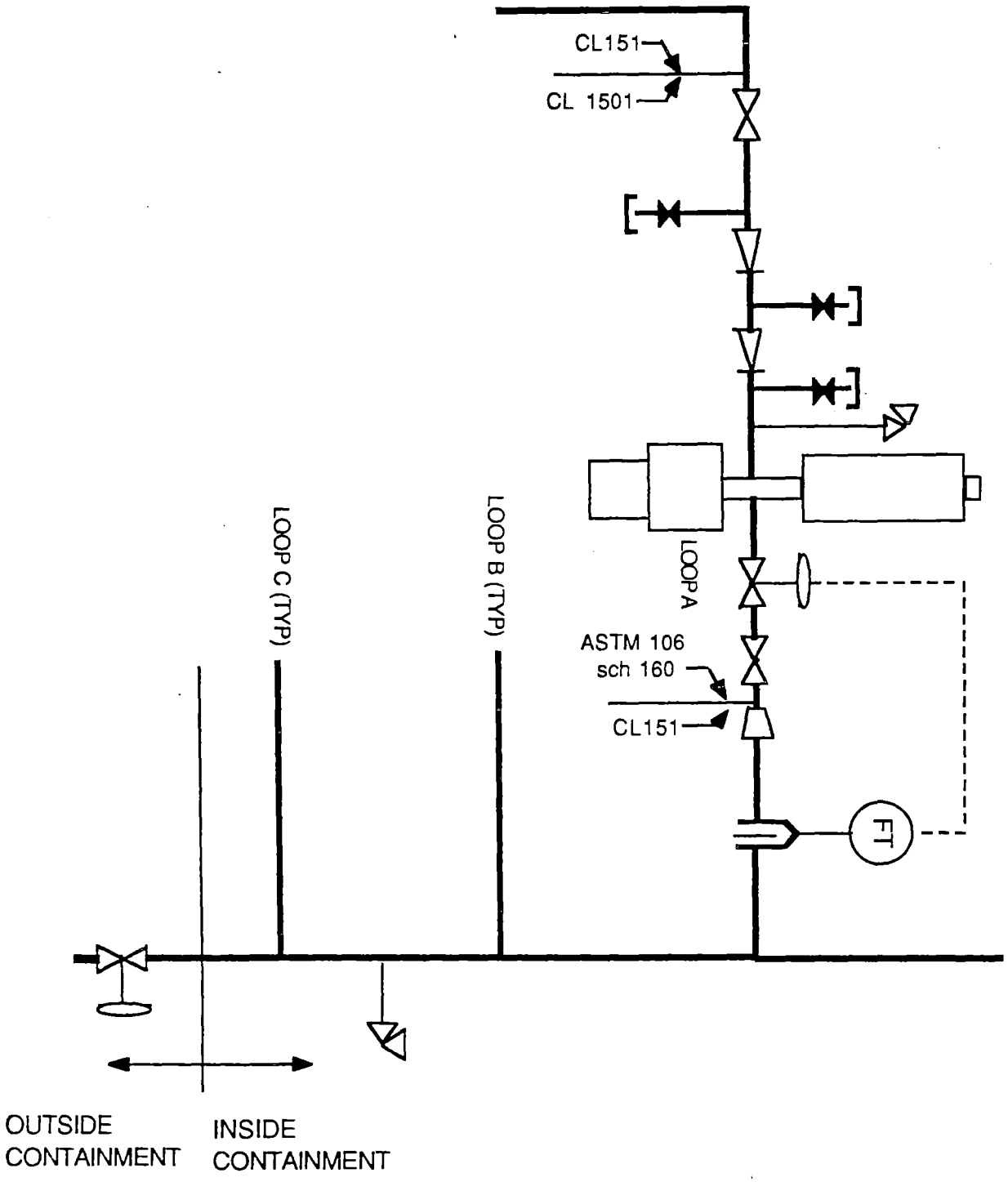
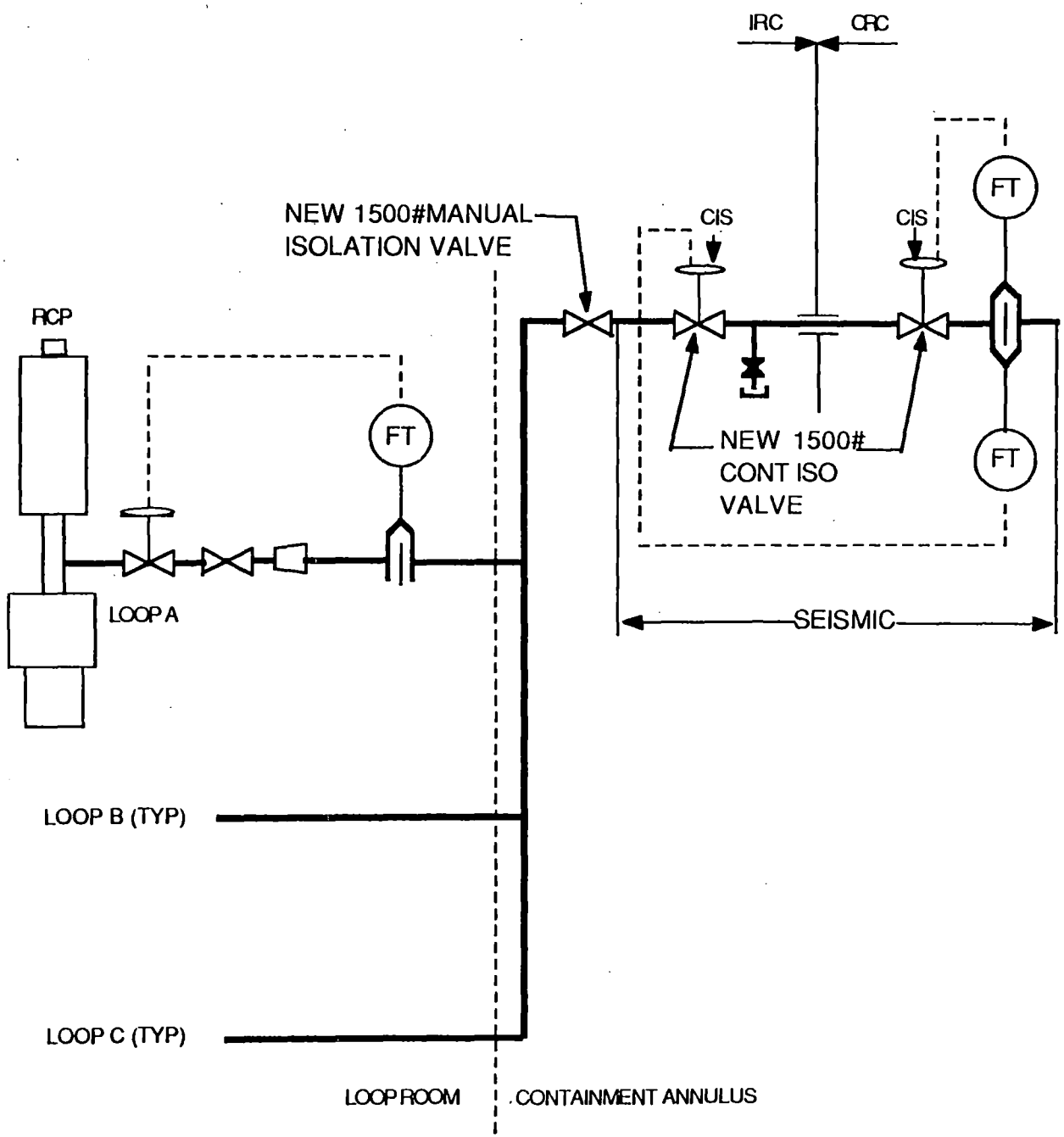

CL151
CL 1501
LOOP C (TYP)
LOOP B (TYP)
LOOP A
ASTM 106
sch 160
CL151
FT
OUTSIDE
CONTAINMENT
INSIDE
CONTAINMENT

FIGURE 1

FIGURE 2


IRC
CRC
NEW 1500#MANUAL
ISOLATION VALVE
CIS
CIS
FT
FT
FT
RCP
NEW 1500#
CONT ISO
VALVE
LOOP A
SEISMIC
LOOP B (TYP)
LOOP C (TYP)
LOOP ROOM
CONTAINMENT ANNULUS