ATTACHMENT 2

49-90A

QUALITY ASSURANCE MANUAL	SECT. NO. -	REV. 3	PAGE 1 OF 8
ROCHESTER GAS & ELECTRIC CORPORATION GINNA STATION	EFFECTIVE DATE: August 1, 1980		
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TITLE: APPENDIX A QUALITY AND SAFETY RELATED LISTING AND DIAGRAMS	REVIEWED BY:	K R Anderson	7/21/80
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1.0 Introduction

Diagrams and a listing which may be used for guidance in determining safety related structures, systems and components are contained in this appendix. The information is based on the list contained in Section 1.2.1 of the Final Facility Description and Safety Analysis Report. Activities affecting the quality of safety related structures, systems and components are controlled to an extent consistent with their importance to safety. The diagrams are color coded to represent the three quality groups which correspond with the guidelines of Regulatory Guide 1.26.

2.0 Structures, Systems and Components Listing

2.1 The quality assurance program covers all existing Seismic Class I structures, systems and components, including their foundations and supports. In addition, certain nonseismically design structures, systems or components may also be covered by the quality assurance program. Modifications or additions to existing structures, systems and components are designated the same seismic classification as the existing system. New structures, systems, and components shall be designated with a seismic classification in accordance with the guidelines in Regulatory Guide 1.29.

NOTE: THIS LISTING IS INTENDED TO PROVIDE ONLY GUIDANCE IN THE DESIGNATION OF SAFETY RELATED ITEMS. CLASSIFICATION OF INDIVIDUAL ITEMS, WHETHER OR NOT SHOWN IN THIS LIST, SHALL BE ACCOMPLISHED ON A CASE-BY-CASE BASIS.

2.1.1 Buildings and Structures

a. Containment
   (1) all penetrations - mechanical and electrical (to include piping up to and including the outermost primary isolation valve)
   (2) air locks
   (3) concrete shield
   (4) liner
   (5) interior structures
b. Intermediate building (including cable tunnel)
c. Auxiliary building
d. Control building (including wall common with turbine building)
e. Diesel generator rooms (including walls common with turbine building)
f. Screen house - (portion housing Service Water and essential 480 volt busses and switchgear)
g. Spent fuel pit and storage racks
h. Fuel transfer tube
i. Containment crane
j. Standby Auxiliary Feedwater Pump Building

2.1.2 Reactor

a. Vessel (including supporting and positioning members) and head
b. Vessel internals
c. Fuel assemblies
d. Full length control rod assemblies
e. Full and part length CRDM housings
f. Incore Instrumentation structure

2.1.3 Reactor Coolant System

a. Pressurizer
b. Steam generator and supports
c. Reactor coolant pumps
   (1) casing and supports
   (2) main flange
   (3) thermal barriers
   (4) #1, #2 and #3 seals and housings
   (5) pressure retaining bolting

d. Reactor coolant pump motors
   (1) shaft coupling and spool pieces
   (2) armature
   (3) flywheel
   (4) motor bolting
e. piping and valves including hangers and supports shown in color on attached Drawing 33013-424.

2.1.4 Sampling System

Sampling piping and valves shown in color on attached Drawing 33013-422 including hangers and supports.

2.1.5 Engineered Safety Features

a. Safety Injection System
   (1) Accumulators
   (2) Safety injection pumps and motors
   (3) Refueling water storage tank
   (4) Piping and valves, including hangers and supports shown in color on attached Drawings 33013-425 and 33013-432.
b. Residual Heat Removal System
   (1) Residual heat exchangers
   (2) Residual heat removal pumps and motors
   (3) Piping and valves, including hangers and supports shown in color on attached Drawings 33013-425 and 33013-436.
c. Boric acid tanks Drawing 33013-426
d. Containment Spray System
   (1) Containment spray pumps and motors
   (2) Spray headers
   (3) Spray additive tank and eductors
   (4) Spray nozzles
   (5) Piping and valves, including hangers and supports shown in color on attached Drawings 33013-425 and 33013-432.
e. Containment Air Recirculation Cooling and Filtration System Drawing 33013-533
   (1) Fans
   (2) Post accident charcoal filter system
   (3) Distribution system
   (4) Cooling coils
   (5) Ducting

2.1.6 Reactor Control and Protection System

a. Reactor Protection System

All electric and mechanical devices and circuitry between the process and the input terminals of the actuator systems involved in generating signals that initiate protective action. These signals include those that actuate reactor trip and safeguards such as containment isolation, core spray, safety injection, pressure reduction and air cleaning.

b. Reactor Control System
   (1) Rod Control System (including power supplies and position indication systems)
   (2) Automatic and Manual rod control interlock systems

2.1.7 Process Instrumentation and Controls

a. All electric and mechanical devices and circuitry between the process and the input terminals of the actuator systems involved in generating signals that initiate reactor protective action.

b. All electric and mechanical devices and circuitry that monitor systems important to safety.

c. The following are examples of safety related process instrumentation and control parameters.
   (1) containment pressure
   (2) steam generator pressure and level
   (3) refueling water storage tank and NaOH tank level
   (4) safety injection, residual heat removal and auxiliary feedwater flow
   (5) pressurizer pressure and level
   (6) control room radiation
   (7) reactor coolant temperature
   (8) certain pump and valve controls

2.1.8 Chemical and Volume Control System

a. Volume control tank
b. Boric acid tanks
c. Charging pumps, motors, and drives
d. Regenerative heat exchanger
e. Nonregenerative heat exchanger
f. Excess letdown heat exchanger
g. Seal water heat exchanger
h. Charging pump filter
i. Reactor coolant filter housing
j. Seal water return filter housing
k. Seal injection filter housing
l. Boric acid filter housing
m. Letdown orifices
n. RCP seal bypass orifices
o. Boric acid blender
p. Boric acid transfer pumps and motors
q. Boric acid tank orifices
r. CVCS demineralizers
s. Piping and valves, including hangers and supports shown in color on attached Drawings 33013-426, 33013-427, 33013-433 and 33013-434.

2.1.9 Emergency Power Supply System

a. Diesel Generators (including engine driven pumps, air intercooler and jacket liners)
b. Diesel Generator auxiliary systems shown on Drawing 33013-539
   (1) Cooling water system (including heat exchanger, piping, valves, and motor driven pump and tank)
   (2) Lubrication system (including heat exchanger, piping, valves, and motor driven pump)
   (3) Starting system (including air storage tanks, piping, valves - Excluding air compressors)
   (4) Fuel oil system (including storage tanks transfer pump)
c. 480 volt safeguards system
   (1) Bus 14, 16, 17 and 18 switchgear and protective devices
   (2) Safeguard motor control centers (1C, 1D, 1G1, 1G2, 1L, 1M)
   (3) Safeguard system cables and cable trays

d. 125 VDC system including the station batteries and racks.
e. AC Instrument buses

2.1.10 Steam and Power Conversion System

a. Main steam piping from steam generators to MSIV's, including hangers and supports shown in color on attached Drawing 33013-534.
b. MISV's including actuators
c. Main steam safety valves
d. Main steam power operated relief valves
e. Feedwater piping, including hangers, supports and valves shown in color on attached Drawing 33013-544.
f. Blowdown piping including hangers, supports and valves shown in color on attached Drawing 33013-522.

2.1.11 Waste Disposal System

a. Waste holdup tanks
b. Sump tank
c. Gas decay tanks
d. Waste gas compressors
e. Waste evaporator feedpump
f. Sump tank pumps
g. Spent resin storage tanks
h. Piping including hangers and supports and valves shown in color on attached Drawings 33013-423, 33013-429, 33013-430, and 33013-431.

2.1.12 Auxiliary Feedwater System

a. Auxiliary feedwater pumps (turbine and motor driven)
b. Auxiliary feedwater pump motors and turbine drive
c. Piping and valves, including hangers and supports, shown in color on attached Drawing 33013-544.

2.1.13 Standby Auxiliary Feedwater System

a. Standby auxiliary feedwater pumps
b. Standby auxiliary feedwater pump motors
c. Piping and valves, including hangers and supports shown with boundaries noted in Drawing D-302-071

2.1.14 Component Cooling System

a. Component cooling pumps and motors
b. Component cooling surge tank
c. Component cooling heat exchangers
d. Piping and valves, including hangers and supports shown in color on attached Drawings 33013-435 and 33013-436.

2.1.15 Service Water System

a. Service water pumps and motors
b. Piping and valves, including hangers and supports, shown in color on attached Drawing 33013-529.

2.1.16 Handling Equipment

a. Manipulator crane*
b. Auxiliary building crane*
c. Spent fuel pit crane*
d. Drumming area crane*

2.1.17 Low Temperature Overpressure Protection System, Catalytic Drawing A-202.

3.0 System Flow Drawings

3.1 Detailed flow drawings of the safety related systems are shown in Attachment 1 to this Appendix.

*These cranes were classified as nonseismic equipment, but parts of each were originally specified for procurement as meeting Class I design requirements. There may, however, be some seismic design requirements for some of these cranes.

4.0 Consumables Utilized in Safety Related Structures, Systems and Components

4.1 This listing is intended as a guide for procurement and receipt acceptance of consumables whose quality may have significant impact on maintaining the integrity of safety-related structures, systems and components as listed in 2.0 of this Appendix. Quality requirements are applied only to the extent necessary to ensure that the safety related structure, system or component will fulfill its safety function.

a. Resins (used in CVCS)
b. Bulk Boric Acid (used in CVCS and RCS)
c. Sodium Hydroxide (used in Containment Spray System)
d. Lithium Hydroxide (used in CVCS and RCS)
e. Hydrogen (used in CVCS and RCS)
f. Diesel Fuel Oil (used in Emergency Diesel Generators)
g. Hydraulic Fluid (used as a medium for snubbers)
h. Insulation materials (installed on or adjacent to stainless steel systems and components)
i. NDE Materials
   (1) Liquid Penetrant, Developer, Cleaner
   (2) Ultrasonic Couplant
j. Marking and Coverings on austenitic stainless steel equipment and components (marking pens, protective coatings, tape, etc.)