GINNA STATION
UNIT #1
COMPLETED

DATE :-

TIME :-

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 73

PROCEDURE NO. SC-4.1 REV. NO. 2

LOW SCREENHOUSE WATER LEVEL

TECHNICAL REVIEW

PORC REVIEW DATE 2-17-83

QC REVIEW

PLANT SUPERINTENDENT

FEB 23 1983

EFFECTIVE DATE

QA X NON-QA _____ CATEGORY 1.0

REVIEWED BY: _____

THIS PROCEDURE CONTAINS 3 PAGES

SC-4.1

LOW SCREENHOUSE WATER LEVEL

1.0 **PURPOSE:**

1.1 To provide instructions for response to screenhouse water levels which threaten to effect the capabilities of plant cooling equipment.

1.2 To provide instructions for appropriate notification to authorities of the above in accordance with pre-established classification.

2.0 **REFERENCES:**

2.1 NUREG 0654, Appendix 1, Emergency Action Level Guidelines for Nuclear Power Plants.

2.2 The historic low lake level is 241.4 ft. and the plant design low level is 243.0 ft. USC and GS datum (subtract 1.23 for IGL datum). Due to present lake level control it is not expected to go below 243 ft. or not below an additional foot due to south hurricane force winds.

3.0 **INSTRUCTIONS:**

CAUTIONS: The head loss from the intake to the pump suction with two circulating pumps on is 9 1/2 ft., which results in a design low water level in the suction bay of 233 1/2 ft. USC-GS datum, or 19 1/2 ft. indicated level (21 ft. above suction bay floor).

The computer readout is from the fore bay, upstream of the screens, therefore readings are between the lake level and the suction bay level. The suction of the service water pumps is at 4'3" indicated level and the suction of the fire water pumps is at 12'3" indicated level.

3.1 Whenever low screenhouse water level conditions or traveling screen plugging conditions occur, the following control room indications will alert the operator.

3.1.1 Traveling screen differential high at 6".

3.1.2 Traveling screen differential emergency high at 10".

3.1.3 Screenhouse level low alarm at 17 ft.

3.1.4 Screenhouse level lo-lo alarm at 15 ft.

3.2 In the event of traveling screen differential low and lo-lo alarms, perform actions per alarm responses AR-I-1 and AR-I-9.

3.3. In the event that suction bay level decreases to the 17 ft. alarm point, perform the following:

3.3.1 Verify operation of all screens.

3.3.2 If low level persists after checking screen operation consider opening the recirculation gate, evaluating the facts surrounding the condition, and load changes that may be necessary.

3.3.3 If it is seen that the level condition is deteriorating open the recirculation gate and reduce load as necessary to maintain discharge temperature within limits.

3.3.4 Evaluate and classify condition per SC-100 Ginna Station Event Evaluation and Classification and implement applicable emergency procedure.

3.3.5 If warranted, reduce load to 50% in anticipation of stopping one circulating water pump. Stopping one pump should restore about 7 ft. in the screenhouse.

3.4 If the level decreases to the 15 ft. alarm point perform the following:

3.4.1 Open the recirculating gate full open.

3.4.2 Reduce load to less than 50%.

3.4.3 Monitor circulating water pump and service water pump discharge pressures.

3.4.4 Continue to check for screen plugging and take needed efforts to clear it.

3.4.5 If pump discharge pressures being monitored show any deterioration, immediately stop one circulating water pump.

3.5 If the level remains below the 15 ft. alarm point with only one circulating pump running, perform the following:

3.5.1 Proceed with an orderly shutdown, stopping the remaining circulating water pump.

3.5.2 Continue pump discharge pressure monitoring and screen clearing.

3.5.3 If the level decreases to 13 ft., proceed to cold shutdown immediately.

3.5.4 If condition persists call the Fire Protection and Safety Coordinator or his alternate to install four lays of three inch hose (fitted with two and one half inch couplings) from two domestic water hydrants to two wall hydrants utilizing clapper valves to prevent back flow. This will supply greater than two thousand gallons per minute to the fire system from the domestic water supply.

Consider calling the Ontario Volunteer Fire Department to stand by until these connections are made.

3.6 If the level decreases further and service water discharge pressures are affected, or if a fire activates a fire suppression water system while at the 15 ft. alarm point perform the following:

3.6.1 Immediately call for Ontario Fire Department Assistance.

3.6.2 Take every effort to augment cooling capacity by making use of the yard hydrant supply.