JOSEPH M. FARLEY NUCLEAR PLANT
UNIT 1
NARRATIVE SUMMARY OF OPERATIONS
MARCH, 1981

In the month of March, 1981, there was one manual trip from Mode 2, two manual shutdowns from Mode 2 and one automatic trip from Mode 2. The unit was shutdown through the middle of March for refueling.

The following safety-related maintenance was performed in March:

1. Performed miscellaneous maintenance on Diesel Generators.

2. Completed main control board modifications recommended as a result of human factors evaluation.

3. Completed implementation of various NUREG-0578 and NUREG-0737 requirements.

4. Completed implementation of various Farley Fire Protection Program Re-evaluation requirements.

5. Completed implementation of various design changes associated with NRC IE Bulletin 80-11 and NRC IE Bulletin 79-14.

6. Replaced flex gaskets on Reactor Coolant System loop B RTD bypass manifold.

7. Repaired open lift coil cable on control rod K-14.

8. Replaced bearing on containment mini-purge fan motor.

9. Pulled No. 10 River Water Pump for repair due to high vibration.

8104210 533

MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS

Licensee initiated major changes to the radioactive waste systems (Liquid, gaseous and solid):

1. Shall be reported to the Commission in the Monthly Operating Report for the period in which the evaluation was implemented. The discussion of each change shall contain:

   a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59;

Discussion: The Three-Tank Hittman Disposable Demineralizer System converts plant-generated liquid radwaste to a product that is suitable for re-use or discharge. This process dramatically reduces the amount of radwaste that must be packaged and transported for disposal. The following is a summary of the Hittman Disposable Demineralizer System's effect on plant operation:

Offsite Gaseous Releases - No increase in offsite radiation exposure.

Offsite Liquid Releases - No increase in offsite radiation exposure.

Effect of Demineralizer System on Shipped Volume - Volume will be reduced significantly.

Operator Radiation Exposure - Operator radiation exposure will be reduced significantly.

Radiation Exposure to Public from Shipments - Public exposure will be slightly reduced.

Shipping Accident - The probability of a shipping accident will be reduced.

Spent Liner Handling Accident (Spill) - The probability of an accident unlike those already analyzed exists. The consequences of such an accident have been analyzed and found to result in negligible offsite exposure as discussed below:

Changeout of spent demineralizer liners requires lifting of the liner with the auxiliary hook of the spent fuel cask crane. Failure of the rigging or failure of one or more of the lifting eyes on the liner could result in a liner drop accident. Crane lifts will not be made during periods of high winds or inclement weather, to minimize the potential for handling accidents.

DISKETT: Tech. 17

A hypothetical liner drop accident will represent nothing more than a radioactive spill outside the confines of the auxiliary building. A liner drop would have no impact on the integrity of the auxiliary building structure.

The consequences of a spent demineralizer handling accident have been evaluated. The contents of a liner are assumed to be emptied either on the roof of the auxiliary building or on the ground outside the building. There will be no credible mechanism for transporting resins to the site boundary. The release of 10 gallons of waste water assumed to be left in the liner has been conservatively evaluated. It was assumed that 10 gallons of reactor coolant decayed for three weeks were released to the storm drains in one minute and emptied undiluted into the river. This resulted in a calculated whole body dose of 0.22 millirem.

b. Sufficient detailed information to totally support the reason for the change without benefit of additional of supplemental information;

Discussion: The volume reduction provided by the Disposable Demineralizer System is necessary due to the state of South Carolina's volume allocation system in effect at Barnwell, S. C.

c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems;

Discussion: Operating Principles

System

The liquid radwaste is processed through three separate tanks. Liquid is drawn through an underdrain system in each tank. (Pump No. 3 discharges liquid back to the plant.) Flow of radwaste into tank No. 1 is automatically controlled by two valves as described later. Provisions are included for adjusting the speed of each pump to achieve balanced flow.

Demineralizer Tank No. 1 is loaded with activated carbon to provide initial filtration of the radwaste. This filter removes solids and cobalt isotopes existing in the form of colloidal-sized suspended solids, as well as cleaning agents and other chemicals that can be removed by adsorption on the activated carbon, thus conditioning the radwaste for treatment in the subsequent tanks.

Demineralizer Tanks No. 2 and No. 3 contain layered beds of ion-exchange resins, with the resins comprising each layer selected for the particular radionuclides to be eliminated. Tank No. 2 removes most of the radionuclides, and Tank No. 3 polishes the effluent for return to the plant.

Each tank is equipped with a special gasketed head assembly which is bolted to the top of the tank and includes a vent connection.

Liquid Level Control

Each of the three demineralizer head assemblies is equipped with a set of level probes. When the surface of the liquid touches a probe, a circuit is created through the conductive liquid. Such circuits are formed when the liquid level reaches the H1, H2 and H3 probes. The signals generated in this manner are routed to the control panel where relay-type logic is employed to control the three pumps and the flow control valves.

The liquid level during normal operation is maintained between the H1 and H2 levels. This range is maintained by automatically stopping the pump that discharges into a given liner when the level in that liner reaches H2. (In the case of Tank No. 1, one of two valves in parallel closes to reduce flow from the plant if the level reaches H2.) When the level reaches to H1, the pump re-starts, or (in the case of Tank No. 1) the valve re-opens.

If a malfunction occurs and the level reaches H3, an alarm sounds and a backup circuit stops the pump feeding that tank. (If the H3 level is reached in Tank No. 1, the alarm sounds and both flow controls valves close.)

Description of Major Assemblies

The complete demineralization system consists of three tanks, three pump skids, and one control panel skid along with their interconnections. The major assemblies are described as follows:

Demineralization Tanks

All three liners are similar except that No. 1 contains carbon while Nos. 2 and 3 contain layered resins. Up to 125 cubic feet of carbon or resin is loaded through the fill ports by Hittman Nuclear and Development Corporation, using proprietary techniques.

The tanks are approximately six feet in diameter and six feet high and are constructed of carbon steel. Each tank includes an underdrain system extending over the entire bottom of the unit and terminating at a dewatering connector.

The head assembly, bolted to the top of the tank, is equipped with a gasket to prevent leakage. Mounted to the head are the electrode holder for the level-sensing probes, the fill and vent penetrations, and a lifting eye. The lifting eye is for the head only. (Separate lifting lugs are provided for the tank.) A sample valve is included on the fill line.

Quick-coupling connectors are used to terminate the fill, vent, and dewatering penetrations. This facilitates connection of the hoses that connect the tanks to the skids and plant vent.

A drain plug is included at the bottom of the tank for use during final dewatering of a tank that has been removed from service.

Entry Pump Skid

Liquid radwaste from the plant enters through a quick-coupling on the top of the skid and flows through a 1" manually-operated valve. This valve permits adjustment of the flow to achieve the desired relationship between the liquid entering tank No. 1 and the liquid being drawn from tank No. 1.

Liquid flowing through the manually-operated valve is supplied to a 1/2" air-operated valve and to a 1" air-operated valve. These two valves are connected in parallel, and they respond to open-close commands from logic in the control panel skid to control the flow of liquid into tank No. 1. In the event of a malfunction which allows the liquid in tank No. 1 to reach the H3 alarm level, both valves close, completely stopping flow into tank No. 1.

During normal operations, the 1/2" valve is open at all times. The 1" valve is also open unless the liquid in tank No. 1 rises to the H2 level at which time it closes and remains closed until the liquid recedes to the H1 level. In this manner, the liquid in tank No. 1 is kept between the H1 and H2 levels so long as it is not being pumped out of the tank at a faster rate than it enters when both valves are open.

The rate at which liquid is pumped out of tank No. 1 is determined by the speed at which pump No. 1 is operating. This speed is adjustable by means of a throttling valve located on the control panel skid. When properly adjusted, the pump removes liquid from tank No. 1 at the same rate or a slightly lower rate than it enters the tank.

Starting and stopping of the pump is controlled by a solenoid valve in its air supply line. The solenoid valve is located on the control panel skid and is, in turn, controlled by logic in the control panel. If the liquid in tank No. 1 falls below the H1 level, pump No. 1 stops until the level rises again to H1. Therefore, if the rate of flow through the pump exceeds the rate of flow into tank No. 1, the pump will periodically cycle on and off as the liquid in tank No. 1 cycles about the H1 level. This condition can be corrected by adjusting the 1" manually operated valve to increase the flow from the plant, or by reducing the pump speed.

Pump No. 1 is also controlled by the liquid level in tank No. 2. If the tank No. 2 level reaches H2, the pump stops and remains off until the level recedes to H1. This action keeps the liquid in tank No. 2 between the H1 and H2 levels. If a malfunction occurs allowing the tank 2 liquid to reach H3 level, a backup circuit stops pump No. 1 until the liquid recedes to the H1 level.

A surge suppressor is included in the pump discharge line to reduce the flow and pressure pulsations resulting from pump operation.

Two conductivity sensors are included on the Entry Pump Skid. One senses conductivity of liquid received from the plant, and the other senses conductivity of the liquid discharged from tank No. 1. Signals from these sensors are routed to a selector switch on the Control Panel Skid to provide a readout and recording of conductivity at either of these points. The relative indications indicate the effectiveness of the carbon filter.

A relief valve is included in the air supply line for the two air-operated valves. This valve was adjusted at time of shipment to vent at 100 PSIG to avoid excessive air pressure to the valves.

Vacuum at the suction port of pump No. 1 is displayed by a vacuum gauge, and a set vacuum is sensed by a vacuum switch. A high vacuum at this point, indicating filter or underdrain impairment in tank No. 1 or hose obstruction, turns on an indicator lamp on the control panel.

Pressure at the pump No. 1 discharge is displayed by a pressure gauge, and a set pressure is sensed by a pressure switch. High pressure at this point, indicating obstruction of the fill line to tank No. 2, turns on an indicator lamp on the control panel.

Provisions for conditioning the air supply to the pump are included in the form of a lubricator unit in the air supply line at the top of the skid. The lubricator unit is filled with a mixture of ethylene glycol and water to ensure against icing of the pump, and the pipe plug allows for periodic injection of penetrating oil into the pump.

Intermediate Pump Skid

The Intermediate Pump Skid draws liquid from tank No. 2 and discharges it into tank No. 3. Pump No. 2, located on this skid, is controlled in the same manner as pump No. 1 on the Entry Pump Skid. The pump operates whenever the liquid in tank No. 2 is at or above the H1 level and the liquid in tank No. 3 has not reached the H2 level. If either of these conditions changes, the pump stops. If the stoppage occurs because H2 was reached in tank No. 3 the pump stays off until the tank No. 3 level reaches H1. If the stoppage occurs because the tank No. 2 level rises above H1, the speed of pump No. 2 can be reduced, or the speed of pump No. 1 can be increased, to stop the liquid in tank No. 2 from cycling about the H1 level.

This skid is also equipped with a surge suppressor, conductivity sensor, vacuum switch and gauge, pressure switch and gauge, and air supply conditioning provisions for the pump.

Discharge Pump Skid

The Discharge Pump Skid, removes liquid from tank No. 3 and discharges it into the plant system. Pump No. 3, located on this skid, operates whenever the liquid in tank No. 3 is above H1 and pressure in its discharge line is not abnormally high. If either of these conditions changes, the pump stops. If the stoppage occurs because of high pressure, an audible alarm is actuated and the pump stays off until the high pressure is relieved. If the stoppage occurs because tank No. 3 level falls below H1, the pump restarts when the level rises above H1. Cycling of the pump due to level can be cleared by adjustment of pump speeds as previously described.

As discussed, the pressure switch on this skid serves as a pump control in addition to controlling an indicator lamp on the control panel. The surge suppressor, conductivity sensor, vacuum switch and gauge, and the pump air supply conditioning functions are as described for the other skids. A liquid vortex flowmeter is included in the discharge line of this skid. The signal from this transducer is routed to a signal conditioner on the control panel skid for a visual display of flow rate and a totalization of processed liquid volume.

Control Panel Skid

The Control Panel Skid includes the control panel, conductivity and flowmeter instruments, and conditioning and control devices for air supplied to the three pumps. Included on the front of the control panel are the operating controls, indicator lamps, and audible alarm. Logic components (relay type) which control the valves and pumps as previously described are located inside the control panel.

Conductivity instruments mounted on the skid include two conductivity monitors that provide digital displays, a 2 pen recorder and a four-position selector switch. Conductivity of liquid being returned to the plant is continuously displayed on one of the monitors and continuously recorded on one of the recorder channels. This monitor displays conductivity directly in micromhos. Input to the other monitor and recorder channel is operator-selected (by using the switch) to display conductivity of liquid at one of the following points:

Position:	Measurement Point
1	Plant radwaste entering the system
2	Liquid discharged from tank No. 1
3	Liquid discharged from tank No. 2

A flowmeter mounted on the Control Panel Skid provides a digital indication of the total liquid that has been processed in terms of gallons as well as an instantaneous flow rate indication in terms of percent of full-scale. (Full scale is 72 gal./min.)

Plant air is supplied to the Control Panel Skid, where it is manifolded into three separate lines (one for each pump in the system). Each line includes a filter/regulator unit, which conditions the air and provides for adjustment of pressure, a manually operated globe valve that serves as a pump speed throttle, a solenoid operated valve that responds to logic in the control panel to start and stop the pump served by that line, and an output pressure gauge. A valve is provided at the air inlet to the skid to close off the air supply during shut-down periods.

Interfaces With Other Plant Systems

The Hittman Portable Demineralization System interfaces with the Unit 1 and Unit 2 Waste Processing Systems. Waste water is received from either the Unit 1 or Unit 2 Floor Drain Tanks, Waste Holdup Tanks, Chemical Drain Tanks, Waste Evaporators and Recycle Evaporators. After demineralization, water is returned to either the Unit 1 or Unit 2 Waste Evaporator Condensate Tank for re-use or discharge.

The Hittman Portable Demineralization System receives instrument air and service air from Unit 2 for valve and pump operation and control. The HDNC Portable Demineralization System is vented to the Unit 2 Radwaste Area Ventillation System.

d. An evaluation of the change which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;

Discussion: <u>Offsite Gaseous Releases</u>

The HNDC Disposable Demineralizer system will be vented to the radwaste area ventilation system. The airborne releases from the system will consist primarily of noble gases. As the system is operated at ambient temperature, the releases from system operation will be less than the noble gas releases due to operation of the evaporators.

There will be no additional exposure to members of the public from airborne releases from the system.

Offsite Liquid Releases

The volume of liquid releases will be increased by the use of the HNDC system. The additional water released will be the water previously used in the solidification process. As this volume is less than 10% of the present release volume, the effect on offsite dose will be minimal. The activity released is the only pertinent consideration in offsite dose computation. As the water to be released will be subject to the same analysis and dose projection as the evaporator distillate, no increase in offsite dose is anticipated.

e. An evaluation of the change which shows the expected maximum exposures to individuals in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto;

Discussion: Estimate of Exposure to Public from Shipments

The annual volume shipped without volume reduction (CNI solidification) = 18,044 $ft.^3$

This corresponds to approximately $\frac{18,044}{300}$ = 60 containers

Approximately 50% can be shipped unshielded, two liners per shipment. This yields a total of approximately 40 shipments.

With volume reduction a total of 8 containers will be shipped. All shipments will be shielded, one liner per shipment.

The number of shipments will be reduced by 80% with the HNDC system.

For purposes of estimating the effect on public exposure, the following assumptions are made:

1. The unshielded shipments result in negligible exposure.
2. The shielded shipments of solidified evaporator bottoms will have dose rates of 1/2 the allowable limit.
3. The HNDC shipments will be shipped at the limit.

The dose rate limit is 10 mr/hr. at 6 feet. The exposure to the public is:

10 x P x NH for the HNDC shipments
5 x P x NC for the CNI shipments

P = Public exposure hours
NH = Number of HNDC shipments = 8
NC = Number of CNI shipments = 20

Total dose: 80P - HNDC shipments
100P - CNI shipments

Although total public exposure is unknown, it is estimated that public exposure will be reduced by at least 20% by the reduced shipments.

It should also be noted that without the volume reduction it is unlikely that all shipments could go to Barnwell due to the volume allocation program in South Carolina. This would result in shipments to Beaty, Nevada or Richland, Washington. These long distance shipments would increase the public exposure for the CNI shipments.

f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made;

Discussion: Evaluaton of Effect of Demineralizer System on Shipping Volume

Actual Solid Wastes without Hittman (1st qtr., 1981 for Unit 1).

9,418 ft^3 shipped with activity of 99 Curies.

Predicted Solid Wastes using Hittman (for Unit 1 - same period).

5,181 $ft.^3$ with activity of 60 Curies.

Evaluation of Effect of Demineralizer System on Liquid Effluents

See item (d) (Offsite Liquid Releases).

Evaluation of Effect of Demineralizer System on Gaseous Effluents

See item (d) (Offsite Gaseous Releases).

g. An estimate of the exposure to plant operating personnel as a result of the change.

Discussion: <u>Estimate of Exposure from System Operation</u>

It is assumed that a batch is the contents of one 5,000 gallon tank. Process rate is 25 gpm. This gives a batch process time of 200 minutes.

	Operational Step	Time	Dose Rate	Total Dose
1.	Check out process skid	15 min.	10 mr/hr.	2.5 mr
2.	Run process (from remote panel)	200 min.	1 mr/hr.	3.5 mr
3.	Shutdown skid check-out	15 min.	10 mr/hr.	2.5 mr
	Total			8.5 mr.

For 50,000 gallon/month process, 10 batch/month

For annual exposure = $10 \frac{\text{batches}}{\text{month}} \; 8.5 \frac{\text{mr}}{\text{batch}} \; 12 \frac{\text{mo.}}{\text{yr.}}$

= 1020 millirem
or 1.02 Man-Rem/year

Estimate of Exposure from Vessel Changeout

	Operational Step	No. Operators	Estimated Time	Estimated Dose Rate	Estimated Total Dose
1.	Open roof hatches	2	60 min.	5 mr/hr.	10 mr
2.	Rig old container for lifting	1	30 min.	166 mr/hr.	83 mr
3.	Lift into solidification room	1	30 min.	166 mr/hr.	83 mr
4.	Remove rigging	1	30 min.	166 mr/hr.	83 mr
5.	Hook-up solidification rig	2	30 min.	166 mr/hr.	166 mr
6.	Run solidification Rig	2	120 min.	5 mr/hr.	20 mr
7.	Remove solidification Rig	2	30 min.	166 mr/hr.	166 mr
8.	Install lid	2	15 min.	166 mr/hr.	83 mr
9.	Install lifting rig	1	30 min.	166 mr/hr.	83 mr
10.	Lift and survey	3	30 min.	166 mr/hr.	249 mr
11.	Load onto truck	2	30 min.	166 mr/hr.	166 mr
12.	Close shipping liner	2	120 min.	10 mr/hr.	40 mr
13.	Place new container system	2	60 min.	10 mr/hr.	20 mr

Total dose = 1252 millirem per container

Annual total dose = 10.016 Man-Rem

Steps 2-7 are for solidification only.

Total Steps 2-7 = 601 millirem

Total dose without solidification = 651 millrem per container

Annual total dose without solidification = 5.208 Man-Rem

If only resin is solidified, carbon shipped dewatered:

Annual total dose = 7.612

Estimate of Present Operator Exposure

Waste Evaporator Operation	7.6 Man-Rem/year
Solidification System Operation	4.3 Man-Rem/year

One-Unit Total = 11.9
Two-Unit Total = 23.8 Man-Rem/year

Man-Rem Summary

Present System	= 23.8 Man-Rem/year
HNDC (No Solidification) 5.208 + 0.84	= 6.048 Man-Rem/year
HNDC (Resin Solidification, 7.612 + 0.84	= 8.452 Man-Rem/year
HND (100% Solidification) 10.016 + 0.84	=10.856 Man-Rem/year

h. Documentation of the fact that the change was reviewed and found acceptable by the PORC.

Discussion: The Safety Evaluation for PCN 80-893 was approved by the Plant Operations Review Committee on 12/22/80.

OPERATING DATA REPORT

DOCKET NO. 50-348
DATE 4/1/81
COMPLETED BY W. G. Hairston, II
TELEPHONE (205)899-5156

OPERATING STATUS

1. Unit Name: Joseph M. Farley - Unit 1
2. Reporting Period: March, 1981
3. Licensed Thermal Power (MWt): 2652
4. Nameplate Rating (Gross MWe): 860
5. Design Electrical Rating (Net MWe): 829
6. Maximum Dependable Capacity (Gross MWe): 844.6
7. Maximum Dependable Capacity (Net MWe): 803.6
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: N/A

Notes 1) Cumulative data since 12/1/77, date of commercial operation.

9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	2160	29,208
12. Number Of Hours Reactor Was Critical	104.5	104.5	17,286.8
13. Reactor Reserve Shutdown Hours	183.4	183.4	2,630.2
14. Hours Generator On-Line	-0-	-0-	16,703.4
15. Unit Reserve Shutdown Hours	-0-	-0-	-0-
16. Gross Thermal Energy Generated (MWH)	-0-	-0-	41,989,891.8
17. Gross Electrical Energy Generated (MWH)	-0-	-0-	13,419,408
18. Net Electrical Energy Generated (MWH)	-15,842	-23,946	12,583,804
19. Unit Service Factor	00.0	00.0	57.2
20. Unit Availability Factor	00.0	00.0	57.2
21. Unit Capacity Factor (Using MDC Net)	-02.6	-01.4	53.6
22. Unit Capacity Factor (Using DER Net)	-02.6	-01.3	52.0
23. Unit Forced Outage Rate	100.0	100.0	07.7

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): N/A

25. If Shut Down At End Of Report Period, Estimated Date of Startup: April 5, 1981
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	8/6/77	8/9/77
INITIAL ELECTRICITY	8/20/77	8/18/77
COMMERCIAL OPERATION	12/1/77	12/1/77

POOR ORIGINAL

DOCKET NO. 50-348

UNIT 1

DATE 4/1/81

COMPLETED BY W. G. Hairston, III

TELEPHONE (205) 899-5156

MONTH March, 1981

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	-0-	17	-0-
2	-0-	18	-0-
3	-0-	19	-0-
4	-0-	20	-0-
5	-0-	21	-0-
6	-0-	22	-0-
7	-0-	23	-0-
8	-0-	24	-0-
9	-0-	25	-0-
10	-0-	26	-0-
11	-0-	27	-0-
12	-0-	28	-0-
13	-0-	29	-0-
14	-0-	30	-0-
15	-0-	31	-0-
16	-0-		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

(9/77)

POOR ORIGINAL

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-348
UNIT NAME J.M. FARLEY-UNIT 1
DATE 4/1/81
COMPLETED BY W. G. Hairston, III
TELEPHONE (205)899-5156

REPORT MONTH MARCH, 1981

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
001	810301	S	592.6	C	1	N/A	RC	ZZZZZZ	Unit outage continued from 2/28/81 for refueling.
002	810325	F	41.2	A	1	N/A	CB	INSTRU	Unit manually shut down in Mode 2 to repair a leak on RCS B loop RTD by-pass manifold.
003	810327	F	34.3	A	2	N/A	RB	CRDRVE	Unit manually tripped in Mode 2 to repair an open lift coil cable on control rod K-14.
004	810328	F	24.7	G	3	N/A	HB	ZZZZZZ	Unit tripped in Mode 2 due to Lo-Lo S/G level.
005	810329	F	51.2	A	1	N/A	HB	TURBIN	Unit manually shut down in Mode 2 due to SGFP 1A failing overspeed trip test

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

(9/77)

POOR ORIGINAL