

INFORMATION ONLY

ATTACHMENT 2
RELIEF REQUEST 96-05
04

Duke Power Company

(1) ID No. OP/O/A/2000/043

MASTER FILE

PROCEDURE PROCESS RECORD

Change(s) 11 to
11 incorporated

PREPARATION

(2) Station: KEOWEE HYDRO STATION

(3) Procedure Title: KEOWEE SHIFT TURNOVER AND ROUNDS

(4) Prepared By J. B. [Signature] Date 09-26-95

(5) Requires 10CFR50.59 evaluation?

Yes (New procedure or reissue with major changes)

No (Reissue with minor changes OR to incorporate previously approved changes)

(6) Reviewed By M. W. [Signature] Date 9-27-95

Cross-Disciplinary Review By NR [Signature] Date 9-27-95

(7) Additional Reviews

Reviewed By _____ Date _____

Reviewed By _____ Date _____

(8) Temporary Approval (if necessary)

By _____ (SRO) Date _____

By _____ Date _____

(9) Approved By George A. Ridgeway Date 10-3-95

PERFORMANCE (compare with control copy every 14 calendar days)

(10) Compared with Control Copy N/A, See Enclosures Date N/A

Compared with Control Copy N/A, See Enclosures Date N/A

Compared with Control Copy N/A, See Enclosures Date N/A

(11) Date(s) Performed _____

Work Order Number (WO#) N/A

COMPLETION

(12) Procedure Completion Verification

Yes NA Check lists and/or blanks properly initialed, signed, dated, or filled in NA or NR, as appropriate?

Yes NA Listed enclosures attached?

Yes NA Data sheets attached, completed, dated, and signed?

Yes NA Charts, graphs, etc. attached and properly dated, identified, and marked?

Yes NA Procedure requirements met?

Verified By _____ Date _____

(13) Procedure Completion Approved _____ Date _____

(14) Remarks (attach additional pages, if necessary)

9608130021 960805
PDR ADOCK 05000269
Q PDR

WORK PERFORMED BY:

OP/0/A/2000/043

Page 1 of 3

DATE: _____

DUKE POWER COMPANY

KEOWEE HYDRO STATION

KEOWEE SHIFT TURNOVER AND ROUNDS

1.0 PURPOSE

To provide a means of monitoring plant status and allow for a smooth, consistent transition between shifts. This procedure establishes a good, solid foundation for a proficient documentation of station inspection and communication of station status to on-coming operating personnel. However, it does not encompass all parameters, machinery, and activities of which individuals should be aware. Good inspection techniques and good observation habits are considered to be part of an individual's qualifications and are deemed necessary to fulfill the purpose of this procedure.

2.0 LIMITS AND PRECAUTIONS

- 2.1 While conducting normal rounds, operators should primarily observe status of equipment. Should any equipment be found in other than normal condition, extreme care should be utilized NOT to unduly change the operational status of that equipment until an evaluation can be made as to the equipment's relation to the Safety Related functions of the Keowee Hydro Station.
- 2.2 Should equipment be identified that requires attention which includes removal from service, a pre-written pre-approved procedure for the equipment or procedure OP/0/A/2000/039 (Removal and Restoration of Keowee Station Equipment) shall be performed.
- 2.3 While observing indicating lights, should one of the following conditions be found, first replace bulb. If replacement does not remedy the situation, contact Keowee Technician "On Call."
 - Light out
 - Light dim
 - Both lights lit, dim or bright.
- 2.4 If any ambient temperature is found to be at or above the maximum desirable temperature, contact the Keowee Station Supervisor or designee, record in Keowee Station Log Book, and, if possible, take actions to reduce the temperature back to normal levels. (See KC-2017)

- 2.5 Should security concerns arise, contact Keowee Security on duty in Keowee lobby.
- 2.6 If the forebay indication appears to be incorrect or is determined to be inoperable or out of service, perform following for personnel listed (See PIP O-095-1076, CA #1):
- ONS Unit 2 control room personnel;
 - inform and request that this notification be logged,
 - request that an NLO be dispatched to take a manual absolute lake level measurement at frequency desired by ONS,
 - request that absolute forebay measurements be communicated to Keowee personnel,
 - Keowee personnel;
 - initiate a R005 screen, in WMS, and record "WR NEW" number,
 - begin manual absolute measurements at shift change,
 - record actions taken in Keowee Station Log Book including absolute forebay indication.
- 2.7 During inspections of wheelpit areas, should accumulations of oil and/or grease be found on surface of equipment or in sump area, the wheelpit should be cleaned. This cleaning should be performed as-soon-as-possible to prevent the oil and grease from being pumped to the tailrace by the turbine sump pumps. (See PIP O-095-1032, CA #5)
- 2.8 If air is added to the governor oil pressure tank of either unit, the Operator shall remain with the process until complete. At NO time shall valves be aligned to admit air to a unit's governor system without an Operator in attendance.

3.0 INITIAL CONDITIONS

None

4.0 PROCEDURE

- ___ 4.1 Perform Enclosure 5.3 (Keowee Shift Rounds Sheet) for day shift AND record any remarks on Enclosure 5.1 (Day Shift Turnover Sheet).
- ___ 4.2 Perform Enclosure 5.3 (Keowee Shift Rounds Sheet) for night shift AND record any remarks on Enclosure 5.2 (Night Shift Turnover Sheet).
- ___ 4.3 Perform Enclosure 5.4 (Keowee Weekly Rounds Sheet) for day shift on Tuesday of each week AND record any remarks on Enclosure 5.1 (Day Shift Turnover Sheet).

INFORMATION ONLY

OP/O/A/2000/043

Page 3 of 3

- ___ 4.4 Perform Enclosure 5.4 (Keowee Weekly Rounds Sheet) for night shift on Tuesday of each week AND record any remarks on Enclosure 5.2 (Night Shift Turnover Sheet).
- ___ 4.5 Perform Enclosure 5.5 (Keowee Monthly Rounds Sheet) for day shift on first Tuesday of each month AND record any remarks on Enclosure 5.1 (Day Shift Turnover Sheet).
- ___ 4.6 Perform Enclosure 5.5 (Keowee Monthly Rounds Sheet) for night shift on first Tuesday of each month AND record any remarks on Enclosure 5.2 (Night Shift Turnover Sheet).

5.0 ENCLOSURES

- 5.1 Day Shift Turnover Sheet
- 5.2 Night Shift Turnover Sheet
- 5.3 Keowee Shift Rounds Sheet
- 5.4 Keowee Weekly Rounds Sheet
- 5.5 Keowee Monthly Rounds Sheet
- 5.6 Breaker Status Checklist
- 5.7 Keowee Supervisor Notification
- 5.8 Oconee Unit 2/Control Room Supervisor Notification
- 5.9 Keowee Security Notification
- 5.10 Safety Eye Wash Check

DATE: _____

INFORMATION ONLY

OP/0/A/2000/043

1 of 12

COMPARED CONTROL COPY: _____

ENCLOSURE 5.3

KEOWEE SHIFT ROUNDS SHEET

INFORMATION SHOULD BE RECORDED DURING THE SHIFT INDICATED

All blanks, except those in the remarks column shall be filled in with a check (✓) or initials of individual performing round. If status is other than normal, enter (SR) in the REMARK column.

A check (✓) after the equipment description in the appropriate shift column indicates all associated parameters have been monitored and are normal except for those noted by a See Remark (SR) in the REMARK column and recorded on Enclosure 5.1 (Day Shift Turnover Sheet) or Enclosure 5.2 (Night Shift Turnover Sheet).

If equipment is found not normal, then it shall be reported to the Keowee Supervisor or designee using Enclosure 5.7 (Keowee Supervisor Notification), recorded as See Remark (SR) in the REMARK column, and recorded on Enclosure 5.1 or Enclosure 5.2.

If it is necessary to add oil to equipment during the shift, then note this as See Remark (SR) in the REMARK column and record it on Enclosure 5.1 or Enclosure 5.2.

OIL
ADDITIO
DOCUMENT

While checking the ACB air system (breakers and compressors), record pressure indications in blanks provided. At ACB compressors, observe position of "protection" valve. For correct operation, the valve handle should be down with the valve stem up. If the protection valve has tripped, the valve handle will be up and the valve stem down. Should the valve be found tripped, reset one time. If valve resets, record action on Enclosure 5.1 or Enclosure 5.2 as required. If valve will not reset or air leakage (any amount) is observed, immediately contact technical support person "on call" for assessment. If ACB air system pressure indications are below required listed pressure, immediately contact technical support person "on call" for assessment. List any action taken on appropriate enclosure(s).

While checking for sufficient lighting in an area, if a light is not lit, then check light switch and power supply. Change bulbs in areas to extent necessary to maintain area lighting at a safe level. Routine change-out of bad bulbs and ballasts are performed by vendors.

When checking for clutter, obstructed walkways or areas and unsafe conditions for personnel shall be the over-riding concern. Unsafe conditions shall be attended to immediately.

When checking Motor Control Centers (MCC) for tag(s), verify tag(s) (red and white safety tags or blue notice tags) are properly attached and breaker position corresponds to position indicated on tag(s).

If equipment status indicate possible problems, refer to prior week procedures to determine trends and enter conclusion on Enclosure 5.7 and, if required, inform Oconee Unit 2 Supervisor per Enclosure 5.8 (Oconee Unit 2 Supervisor Notification).

If a security issue item is identified during rounds, notify Keowee Security per Enclosure 5.9 (Keowee Security Notification).

ACRONYMS:

- (SR) - See Remarks
- (√) - All Equipment Parameters Monitored

1.0 INITIAL CONDITIONS

Review Section 2.0 (Limits and Precautions).

- _____ • Day Shift
- _____ • Night Shift

2.0 PROCEDURE

Description of Equipment

Day Night Remark

Control Room

_____ Day _____ Night

Review Keowee Operators Log	_____	_____
Check station computer for alarms and alarm summary	_____	_____
Check station events recorder for alarms and alarm summary	_____	_____
Check and, if required, set station events recorder date and time	_____	_____
Review Keowee OPS GUIDES Log Book	_____	_____
Record Keowee lake elevation on "Daily Lake Level" form (day shift only)	_____	_____
Check Keowee Statalarm Panels for alarms and perform light test	_____	_____
• Keowee Statalarm Panel SA1	_____	_____
• Keowee Statalarm Panel 1SA1	_____	_____
• Keowee Statalarm Panel 1SA2	_____	_____
• Keowee Statalarm Panel 2SA1	_____	_____
• Keowee Statalarm Panel 2SA2	_____	_____
Check Control Board for proper indicator lights and status	_____	_____

INFORMATION ONLY

OP/O/A/2000/043

3 of 12

Test Emergency Start Initiated-Unit 1 light on CB3 _____

Test Emergency Start Initiated-Unit 2 light on CB8 _____

Check Control Board and Electrical Board for any abnormal conditions _____

Any other Control Room abnormal condition _____

Verify Auxiliaries Auto/Manual Transfer Switches are in AUTO _____

Verify ambient temperature is below 95°F and record temperature _____

Day

Night

• Control Room Temperature - _____ °F

_____ °F

_____ °F

• Minimum/Maximum Temperature (°F) - _____ / _____

_____ / _____

_____ / _____

Check L&N recorders for proper operation and time and, if required, set time _____

Review Keowee R&R Log _____

Review Keowee TSM Log _____

Check Fire Indicating Unit for proper lights _____

Perform Enclosure 5.6 (Breaker Status Checklist) _____

Perform radio check to ONS Unit 2 Control Room _____

Perform telephone check of ARD (Auto-Ringdown) phone, to ONS Unit 2 control room (day shift only) _____

Test Battery Bank 1 & 2 Battery Ground Test _____

Verify sufficient lighting in Control Room _____

Check for clutter in Control Room _____

Record rainfall on "Monthly Rainfall" form (night shift only) _____

Battery Room

_____ Day

_____ Night

Perform Daily Battery Surveillance (IP/1-2/A/0400/013, day shift only, NOT required on weekends or holidays) _____

INFORMATION ONLY

Verify Battery Charger No. 1 is operating properly and ALARM switch is in ENABLE position

Verify Stand-by Battery Charger is in required status and ALARM switch is in proper position (ENABLE - if operating, DEFEAT - if shutdown)

Verify Battery Charger No. 2 is operating properly and ALARM switch is in ENABLE position

Check eye wash station for proper condition

Verify static inverter is operating properly

Verify Battery Bank No. 1 room temperature is between 70° and 80°F, record current temperature, minimum and maximum temperature, and reset thermometer

Day Night

- Battery Bank No. 1 Temperature - _____ °F _____ °F
- Minimum/Maximum Temperature (°F) - _____ / _____ / _____

Check DC 1DA for abnormal breaker position(s) and placement of tag(s)

Check DC 2DA for abnormal breaker position(s) and placement of tag(s)

Verify Battery Bank No. 2 room temperature is between 70° and 80°F, record current temperature, minimum and maximum temperature, and reset thermometer

Day Night

- Battery Bank No. 2 Temperature - _____ °F _____ °F
- Minimum/Maximum Temperature (°F) - _____ / _____ / _____

Verify sufficient lighting in Battery Room

Check for clutter in Battery Room

Check drains for obstructions

West End - Mechanical Equipment Gallery

Day Night

Verify sufficient grease in grease pump

Check Fire Protection Pump for water leakage

- Check turbine gauge panel for indications and lights _____
- Verify indicator lights and switches are normal
for Fire Protection Pump _____
- Check main step-up transformer mulsifyre for water
leakage _____
- Verify main step-up transformer mulsifyre water
pressure is greater than 35 psi _____
- Check ACB-1 Air Compressor for abnormal conditions
(i.e., air or oil leaks), drain condensate,
and record pressure indications
(in psi) Day Night _____
- Storage Pressure (≥ 260 psi) _____ _____
- Discharge Pressure (≥ 150 psi) _____ _____
- Verify ACB-1 Air Compressor protection valve
in reset position (handle down - stem up) _____
- Verify packing box water pressure is ≥ 20 psi (at TGP) _____
- Verify sufficient lighting in area _____
- Verify walkways are unobstructed _____
- Check drains for obstructions _____

KHU-1 (Wheelpit)

- | | <u>Day</u> | <u>Night</u> |
|---|------------|--------------|
| Check for grease line breakage or excessive
accumulation | _____ | _____ |
| Check for oil leakage from governor servo-motors | _____ | _____ |
| Check for other than normal water leakage in
wheelpit area | _____ | _____ |
| Check for air leakage in wheelpit area | _____ | _____ |
| Check for oil leakage from turbine bearing oil
reservoir | _____ | _____ |
| Verify a turbine bearing oil pump is operating | _____ | _____ |
| Verify turbine bearing flow meter indicates flow | _____ | _____ |
| Verify thrust bearing oil level is within
marks at sight glass | _____ | _____ |

OIL
LEAKAGE

WATER
LEAKAGE

OIL
LEAKAGE

PROPER
SYSTEM
OPERATION

INFORMATION ONLY

OP/O/A/2000/043

6 of 12

Check for oil leakage from thrust bearing oil reservoir _____

Verify ambient temperature is below 95°F and record temperature _____

Day

Night

- KHU-1 Wheelpit Temperature - _____ °F _____ °F
- Minimum/Maximum Temperature (°F) - _____ / _____ / _____

Verify sufficient lighting in wheelpit _____

Verify walkways are unobstructed _____

Check drains for obstructions _____

KHU-1 (Mechanical Equipment Gallery)

Day

Night

Verify governor oil pressure is between 318-350 psi _____

Check governor indicator lights _____

Verify Governor BRAKE VALVE control switch is in "AUTO." position on GAC1 _____

Verify NO abnormal or excessive oil or air leakage from governor _____

Verify OR adjust governor oil level in pressure tank between high and low marks @ 350 psi _____

Check MCC 1XA for abnormal breaker position(s) and placement of tag(s) _____

Check MCC 1XS for abnormal breaker position(s) and placement of tag(s) _____

Verify sufficient lighting in area _____

Check for clutter in area _____

Check drains for obstructions _____

OIL
PRESSURE
CHECK

OIL
LEAKAGE

Mechanical Equipment Gallery

Day

Night

Verify Governor Air Storage tank pressure is -350 psi _____

AIR
LEAKAGE

INFORMATION ONLY

OP/O/A/2000/043
7 of 12

Check governor air compressors for abnormal conditions and drain condensate _____

Verify KHU-1 wheelpit ventilating fan is operating _____

Verify air handling unit is operating _____

Check, and if required, add oil to depressing air compressors valve oilers _____

Verify depressing air compressors crankcase oil level is showing at least 1/2 of sight glass when operating _____

Check depressing air compressors for abnormal condition _____

Check for other than normal water leakage _____

Check for other than normal air leakage _____

Verify ambient temperature is below 95°F and record temperature _____

Day Night

• Mechanical Equipment Gallery Temperature - _____ °F _____ °F

• Minimum/Maximum Temperature (°F) - _____ / _____ / _____

Verify packing box water pressure is ≥ 20 psi (at TGP) _____

Verify sufficient lighting in area _____

Check for clutter in area _____

Check drains for obstructions _____

KHU-2 (Wheelpit)

Day Night

Check for grease line breakage or excessive accumulation _____

Check for oil leakage from governor servo-motors _____

Check for other than normal water leakage in wheelpit area _____

Check for air leakage in wheelpit area _____

Check for oil leakage from turbine bearing oil reservoir _____

WATER LEAKAGE
AIR LEAKAGE

OIL LEAKAGE

WATER LEAKAGE

OIL LEAKAGE

INFORMATION ONLY

OP/O/A/2000/043

8 of 12

PROPER
OPERAT

- Verify a turbine bearing oil pump is operating _____
- Verify turbine bearing flow meter indicates flow _____
- Verify thrust bearing oil level is within marks at sight glass _____
- Check for oil leakage from thrust bearing oil reservoir _____
- Verify ambient temperature is below 95°F and record temperature

	<u>Day</u>	<u>Night</u>
	_____ °F	_____ °F
- KHU-2 Wheelpit Temperature - _____ °F
- Minimum/Maximum Temperature (°F) - _____ / _____
- Verify sufficient lighting in wheelpit _____
- Verify walkways are unobstructed _____
- Check drains for obstructions _____

KHU-2 (Mechanical Equipment Gallery)

_____ Day _____ Night

- Check turbine gauge panel for indications and lights _____
- Verify sufficient grease in grease pump _____
- Verify governor oil pressure is between 318-350 psi _____
- Check governor indicator lights _____
- Verify Governor BRAKE VALVE control switch is in "AUTO." position on GAC2 _____
- Verify NO abnormal or excessive oil or air leakage from governor _____
- Verify OR adjust governor oil level in pressure tank between high and low marks @ 350 psi _____
- Check MCC 2XA for abnormal breaker position(s) and placement of tag(s) _____
- Check MCC 2XS for abnormal breaker position(s) and placement of tag(s) _____
- Check eye wash station for proper operation _____
- Verify sufficient lighting in area _____

PRESSURE
CHECK

OIL
LEAKAGE

INFORMATION ONLY

OP/O/A/2000/043

9 of 12

Check for clutter in area

Check drains for obstructions

East End - Mechanical Equipment Gallery

	<u>Day</u>	<u>Night</u>
Check station air compressor for abnormal condition and drain condensate	_____	_____
Check ACB-2 Air Compressor for abnormal conditions (i.e., air or oil leaks), drain condensate, and record pressure indications (in psi)	<u>Day</u>	<u>Night</u>
• Storage Pressure (\geq 260 psi)	_____	_____
• Discharge Pressure (\geq 150 psi)	_____	_____
Verify ACB-2 Air Compressor protection valve in reset position (handle down - stem up)	_____	_____
Verify KHU-2 wheelpit ventilating fan is operating	_____	_____
Verify instrument air dryer is operating	_____	_____
Verify main lube oil room mulsifyre water pressure is \geq 35 psi	_____	_____
Check main lube oil room mulsifyre for water leakage	_____	_____
Verify sufficient lighting in area	_____	_____
Check for clutter in area	_____	_____
Check drains for obstructions	_____	_____

Main Lube Oil Room

	<u>Day</u>	<u>Night</u>
Check for oil leaks in oil room	_____	_____
Check main lube oil room for any abnormal condition or water leakage	_____	_____
Verify proper condition of parts washer	_____	_____
Verify sufficient lighting in area	_____	_____
Check for clutter in area	_____	_____
Check drains for obstructions	_____	_____

Spiral Case Gallery

Day Night

Verify gravity oil room mulsifyre water pressure
is \geq 35 psi

Check for excessive water leakage in area

Check for oil leaks in area

Verify sufficient lighting in area

Check for clutter in area

Check drains for obstructions

Draft Tube Gallery

Day Night

Check for excessive water leakage in area

Verify NO oil sheen in station sump

Check station sump pumps for water leakage

Check station unwatering pumps for water leakage

Check for oil leaks in area

Check for air leaks in area

Verify sufficient lighting in area

Check for clutter in area

Check drains for obstructions

Operating Floor

Day Night

Check CO2 system for leakage

Check for water leakage in KHU-2 area

Check ACB-2 for abnormal conditions (i.e., air
leaks, loose connections, etc.) and
record pressure indication (in psi)

Day

Night

• Air Pressure (\geq 150 psi)

Verify sufficient lighting in KHU-2 area

INFORMATION ONLY

Verify ACB-3 Disconnects (89E-3) are closed _____

Verify ACB-4 Disconnects (89E-4) are closed _____

Check ACB-3 for abnormal conditions (i.e., air leaks, loose connections, etc.) and record pressure indication (in psi)

Day _____ Night _____

- Air Pressure (\geq 150 psi) _____

Check ACB-4 for abnormal conditions (i.e., air leaks, loose connections, etc.) and record pressure indication (in psi)

Day _____ Night _____

- Air Pressure (\geq 150 psi) _____

Verify ambient temperature is below 95°F and record temperature _____

Day _____ Night _____

- Main Operating Floor Temperature - _____ °F _____ °F

- Minimum/Maximum Temperature (°F) - _____ / _____ /

- Breaker Vault Temperature - _____ °F _____ °F

- Minimum/Maximum Temperature (°F) - _____ / _____ /

Verify ACB breaker vault is closed _____

Check ACB-1 for abnormal conditions (i.e., air leaks, loose connections, etc.) and record pressure indication (in psi)

Day _____ Night _____

- Air Pressure (\geq 150 psi) _____

Verify sufficient lighting in KHU-1 area _____

Check for water leakage in KHU-1 area _____

Verify oil spill material is in proper area _____

Verify movable items are secured _____

Check for clutter on operating floor _____

Verify powerhouse crane is stored in proper position _____

Verify restrooms are in proper order _____

INFORMATION ONLY

Computer Room

Day Night

- Verify station events recorder is operating properly _____
- Verify station computer is operating properly _____
- Verify diode cabinets are in proper order _____
- Check for water leakage in area _____
- Verify restroom is in proper order _____
- Verify sufficient lighting in area _____
- Check for clutter in area _____

Keowee Station Exterior

Day Night

- Test Fisherman Warning Horn and Light _____
- Check Main Step-up Transformer for leakage and cooling fans and pumps are operating _____
- Check for oil leakage _____
- Verify disconnects are locked _____
- Check tailrace for oil sheen _____
- Verify draft tube hoist is properly secured _____
- Check depressing air tanks for leakage and drain condensate _____
- Check fire hydrants for water leakage _____
- Verify powerhouse doors are secured _____
- Check powerhouse structure for any abnormal conditions _____
- Verify sufficient lighting in area (night shift only) _____
- Check for clutter in area _____
- Check drains for obstructions _____

DATE: _____

INFORMATION ONLY

OP/0/A/2000/043

1 of 2

COMPARED CONTROL COPY:

ENCLOSURE 5.4

KEOWEE WEEKLY ROUNDS SHEET

INFORMATION SHOULD BE RECORDED DURING THE SHIFT INDICATED

All blanks, except those in the remarks column shall be filled in with a check (✓) or initials of individual performing round. If status is other than normal, enter (SR) in the REMARK column.

A check (✓) or initials after the equipment description in the appropriate shift column indicates all associated parameters have been monitored and are normal except for those noted by a See Remark (SR) in the REMARK column and recorded on Enclosure 5.1 (Day Shift Turnover Sheet) or Enclosure 5.2 (Night Shift Turnover Sheet).

If equipment is found not normal, then it shall be reported to the Keowee Supervisor or designee using Enclosure 5.7 (Keowee Supervisor Notification), recorded as See Remark (SR) in the REMARK column, and recorded on Enclosure 5.1 or Enclosure 5.2.

If it is necessary to add oil to equipment during the shift, then note this as See Remark (SR) in the REMARK column and record it on Enclosure 5.1 or Enclosure 5.2.

If equipment status indicate possible problems, refer to prior week procedures to determine trends and enter conclusion on Enclosure 5.7 and, if required, inform Oconee Unit 2/Control Room Supervisor per Enclosure 5.8 (Oconee Unit 2/Control Room Supervisor Notification).

If a security issue item is identified during rounds, notify Keowee Security per Enclosure 5.9 (Keowee Security Notification).

1.0 INITIAL CONDITIONS

Review Section 2.0 (Limits and Precautions).

- _____ • Day Shift
- _____ • Night Shift

2.0 PROCEDURE

<u>Day Shift</u>	<u>Day</u>	<u>Remark</u>
<u>Keowee Station Equipment</u>	_____	
Test Fire Protection Pump		_____
Check and, if required, add oil to compressors		_____
Swap instrument air dryer		_____

Perform Enclosure 5.10 (Safety Eye Wash Check)
as required on enclosure

Night Shift

Night Remark

Keowee Station Equipment

Lubricate KHU-1 Governor

Lubricate KHU-2 Governor

Check Durant counters against watt-hour meters

Check outside lights for proper operation

DATE: _____

INFORMATION ONLY

OP/O/A/2000/043

1 of 2

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ENCLOSURE 5.5

KEOWEE MONTHLY ROUNDS SHEET

INFORMATION SHOULD BE RECORDED DURING THE SHIFT INDICATED

All blanks, except those in the remarks column shall be filled in with a check (✓) or initials of individual performing round. If status is other than normal, enter (SR) in the REMARK column.

A check (✓) or initials after the equipment description in the appropriate shift column indicates all associated parameters have been monitored and are normal except for those noted by a See Remark (SR) in the REMARK column and recorded on Enclosure 5.1 (Day Shift Turnover Sheet) or Enclosure 5.2 (Night Shift Turnover Sheet).

If equipment is found not normal, then it shall be reported to the Keowee Supervisor or designee using Enclosure 5.7 (Keowee Supervisor Notification), recorded as See Remark (SR) in the REMARK column, and recorded on Enclosure 5.1 or Enclosure 5.2.

If equipment status indicate possible problems, refer to prior month procedures to determine trends and enter conclusion on Enclosure 5.7 and, if required, inform Oconee Unit 2/Control Room Supervisor per Enclosure 5.8 (Oconee Unit 2/Control Room Supervisor Notification).

If a security issue item is identified during rounds, notify Keowee Security per Enclosure 5.9 (Keowee Security Notification).

1.0 INITIAL CONDITIONS

Review Section 2.0 (Limits and Precautions).

- ___ • Day Shift
- ___ • Night Shift

2.0 PROCEDURE

Day Shift

Day

Remark

Keowee Station Equipment

Operate station air compressor (approx. 30 min.)

Place stand-by battery charger in service (approx. 24 hours, No. 1 - odd months, No. 2 - even months)

Swap and clean main service water strainer

Check and, if required, set outside lighting timers

Record transformer "Hot Spot" reading in Keowee Station Log and reset gauges

Review Emergency Action Plan (each operator SHALL review plan at least once each six months)

Night Shift

Night Remark

Keowee Station Equipment

Check and, if required, add oil to KHU-1 vacuum break valve

Check and, if required, add oil to KHU-2 vacuum break valve

Wipe oil and dust from depressing air compressors

Wipe oil and dust from piping in depressing air gallery

Verify sufficient lighting at station (bad ballasts found)

DATE: _____

INFORMATION ONLY

OP/0/A/2000/043

1 of 2

COMPARED CONTROL COPY:

ENCLOSURE 5.6

BREAKER STATUS CHECKLIST

PERFORMED BY: _____
Day Night

- NOTES:**
1. This checklist is to be performed during each shift every day. Check status for breakers listed, indicator lights status, and, if found in status other than normal, check "Other Than Normal" column, and record reason in comment section. Each breaker's indicator light status should be with only one light lit brightly. Should a light be out or dimly lit, first, check and/or replace bulb. If one light continues to be dim or both lights are lit, either bright or dim, contact technician "On call." In all cases, if necessary, contact technician "On Call." Enter any abnormal conditions on Enclosure 5.1 (Day Shift Turnover Sheet) or Enclosure 5.2 (Night Shift Turnover Sheet).
 2. ACBs 5, 6, 7, and 8 breaker position is dependent upon the alignment of the Keowee units. If KHU-1 is aligned to the overhead, then ACB-5 is closed and ACB-7 is open. If KHU-1 is aligned to the underground, then ACB-5 is open and ACB-7 is closed. If KHU-2 is aligned to the overhead, then ACB-6 is closed and ACB-8 is open. If KHU-2 is aligned to the underground, then ACB-6 is open and ACB-8 is closed. These are the normal positions of the breakers.
 3. Breakers 2A of 1X Switchgear and 2D of 2X Switchgear are in their "jacked out" position due to a breaker co-ordination concern discovered by ONS Engineering. NSM ON-52961 is to address this concern and has an implementation date of the end of 1996. Until this situation is resolved, the normal position of these breakers is to be opened and in the jacked out position. Unless either of these breakers are found in a different status, checking the status as "OPEN" will be sufficient for this checklist until the resolution is complete.

BKR	LOCATION	INDICATOR LIGHT	NORMAL POSITION	DAY SHIFT AS FOUND		NIGHT SHIFT AS FOUND		OTHER THAN NORMAL
				OPEN	CLOSED	OPEN	CLOSED	
1B	1X Switchgear - ACB-7	CB5 - ACB NO. 7 CONTROL	See Note "2"					
2A	1X Switchgear 600V. MCC 2XA	CB4 - 600 V SWGR 1X 2XA STAND-BY SUPPLY BREAKER 2A	See Note "3"					
2B	1X Switchgear 600V. MCC 2XS	CB4 - 600 V SWGR 1X 2XS STAND-BY SUPPLY BREAKER 2B	Open					

BKR	LOCATION	INDICATOR LIGHT	NORMAL POSI-TION	DAY SHIFT AS FOUND		NIGHT SHIFT AS FOUND		OTHER THAN NORMAL
				OPEN	CLOSED	OPEN	CLOSED	
2C	1X Switchgear	CB4 - 600V SWGR. 1X 1XA NORMAL SUPPLY BKR 2C	Closed					
2D	1X Switchgear	CB4 - 600 V SWGR 1X 1XS NORMAL SUPPLY BREAKER 2D	Closed					
3B	1X Switchgear	CB5 - ACB NO. 5 CONTROL	See Note "2"					
1B	2X Switchgear	CB5 - ACB NO. 8 CONTROL	See Note "2"					
2A	2X Switchgear	CB7 - 600 V SWGR 2X 2XS NORMAL SUPPLY BREAKER 2A	Closed					
2B	2X Switchgear 600V. MCC 2XA	CB7 - 600 V SWGR 2X 2XA NORMAL SUPPLY BREAKER 2B	Closed					
2C	2X Switchgear 600V. MCC 1XS	CB7 - 600V SWGR. 2X 1XS STANDBY SUPPLY BKR 2C	Open					
2D	2X Switchgear 600V. MCC 1XA	CB7 - 600 V SWGR 2X 1XA STAND-BY SUPPLY BREAKER 2D	See Note "3"					
3B	2X Switchgear - ACB-6	CB5 - ACB NO. 6 CONTROL	See Note "2"					
5A	MCC DC 1DA, TIE BREAKER No 1	(No indicator light)	Open					
1A	MCC DC 2DA, TIE BREAKER No 2	(No indicator light)	Open					

COMMENTS: _____

DATE: _____

INFORMATION ONLY

OP/O/A/2000/043

_____ of _____

COMPARED CONTROL COPY:

ENCLOSURE 5.7

KEOWEE SUPERVISOR NOTIFICATION

The discovery of any abnormal condition which requires the notification of the Keowee Supervisor or designee SHALL be documented on this enclosure. Include all pertinent information, date and time of notification, and instructions provided at that time. Any follow-up actions are to be entered as they are taken. Should more space be required, use duplicate copies of this page and number when complete.

Person making notification: _____

Equipment involved: _____

Condition: _____

Keowee Supervisor or designee: _____

Response: _____

Additional actions: _____

DATE: _____

INFORMATION 3.1.1

OP/0/A/2000/043

of _____

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ENCLOSURE 5.8

OCONEE UNIT 2/CONTROL ROOM SUPERVISOR NOTIFICATION

The discovery of any abnormal condition which requires the notification of the Oconee Unit 2/Control Room Supervisor or designee SHALL be documented on this enclosure. Include all pertinent information, date and time of notification, and instructions provided at that time. Any follow-up actions are to be entered as they are taken. Should more space be required, use duplicate copies of this page and number when complete.

Person making notification: _____

Equipment involved: _____

Condition: _____

Oconee Unit 2/Control Room Supervisor or designee: _____

Response: _____

Additional actions: _____

DATE: _____

INFORMATION ONLY

OP/O/A/2000/043

____ of ____

COMPARED CONTROL COPY:

ENCLOSURE 5.0

KEOWEE SECURITY NOTIFICATION

The discovery of any security concern which requires the notification of the Keowee Security Officer SHALL be documented on this enclosure. Include all pertinent information, date and time of notification, and instructions provided at that time. Any follow-up actions are to be entered as they are taken. Should more space be required, use duplicate copies of this page and number when complete.

Person making notification: _____

Equipment involved: _____

Condition: _____

Keowee Security Officer: _____

Response: _____

Additional actions: _____

DATE: _____

OP/O/A/2000/043

INFORMATION ONLY

COMPARED CONTROL COPY: _____

ENCLOSURE 5.10

SAFETY EYE WASH CHECK

- NOTES:**
1. Portable eye wash units do NOT require a flow test but do require a fluid level check and an access clear check.
 2. If flow, level, access, or condition of eye wash stations is NOT acceptable for use and can NOT be corrected, record on Enclosure 5.1 or 5.2.
 3. The level of a portable eye wash station is with the tank full. Flow from a fixed sink type eye wash station is with sufficient quantity of water and pressure to thoroughly flush eyes when in use.

WEEKLY CHECK

EYE WASH LOCATION	TYPE	LEVEL/ FLOW	ACCESS CLEAR	DATE	INITIAL
Keowee Battery Room	Portable				
Keowee Mechanical Eq. Gallery - East End	Fixed Sink				

NOTE: Portable eye wash units are to be emptied, rinsed, and refilled with fresh water at 6 month intervals. This is to be performed during the first week of January and July.

SEMI-ANNUAL MAINTENANCE

EYE WASH LOCATION	TYPE	EMPTIED RINSED REFILLED	DATE	INITIAL
Keowee Battery Room	Portable			