Changes “Other Than Inconsequential” Require These Additional Reviews:

Radiological Controls:
Central Radcon Organization

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1.0 AFFECTED PERSONNEL, FACILITIES, EQUIPMENT, OR AREAS

This procedure applies to WRPS personnel and subcontractors doing work in 200 East Area, 200 West Area, and 600 Area controlled by WRPS and equipment in these areas. The 600 Area is the area between the west fence of 200 East Area and the east fence of 200 West Area. This procedure does not apply to WRPS personnel and subcontractors doing work at the 222-S Laboratory Complex.

2.0 ENTRY CONDITIONS

Unplanned loss of normal electrical power to one or more Tank Farms, Tank Farm facilities, or 600 Area WRPS building.
3.0 ACTIONS

3.1 Immediate Actions

NOTE - Loss of electrical power may also affect compressed air systems. This procedure may be worked in conjunction with TF-AOP-002, “Response to Loss of Compressed Air.”

3.1.1 IF radio communications are affected by loss of electrical power, EVALUATE establishing an alternate method of communication.

3.1.2 EVALUATE AND PLACE in a safe configuration, affected personnel and any Tank Farm operations underway including, but not limited to, the following:
- Waste tank transfer operations
- Waste tank sampling
- Tank/pit intrusive work.

3.1.3 IF personnel contamination monitors (PCMs) are affected by loss of electrical power, EVALUATE radiological control personnel providing portable survey instruments for personnel.

3.1.4 DIRECT all personnel working in affected radiological areas to exit in a controlled manner.

3.1.5 RESTRICT entry into affected radiological/hazardous areas to essential activities.
3.1 Immediate Actions (Cont.)

3.1.6 IF a transformer fire caused electrical failure, CLEAR area downwind of transformer AND

CALL fire department using 911(373-0911 for cell phones) providing all information available AND,

IF needed, REQUEST assistance.

3.1.7 AS applicable, PERFORM required actions for the following:
- OSD-T-151-00007, Operating Specifications for the Double-Shell Storage Tanks
- Tank Farms Technical Safety Requirements Limiting Conditions for Operation (LCO) applicability.

NOTE - Utilities may be able to provide information on extent and exact location of de-energized distribution systems.

3.1.8 REPORT power failure to Utilities by calling 373-7753 or 373-2321.

3.1.9 REPORT power failure (equipment shutdown) to the Central Shift Manager and Environmental per Environmental On-Call List.

3.1.10 ANNOUNCE entering TF-AOP-012 over Tank Farm radio channel(s) AND

SEND SOEN message at the earliest convenience that includes the following:
- Entry into TF-AOP-012
- Event and location
- Required actions for affected personnel/protective actions as applicable
- Access approval and authority as applicable.
3.2 Follow-on Actions

3.2.1 **DISPATCH** available operators to determine:
- Extent of electrical failure
- Cause of electrical failure
- What equipment is still operating
- Alarm status in instrument buildings and control rooms.

**NOTE** - System Design Descriptions (SDDs) are available on TOC web site and provide reference to specific electrical distribution system drawings that may be useful in identifying electrical loads de-energized. SDDs are available on TOC WEB page, Technical Resources, Technical Baseline, RPP Systems, and TOC System Design Descriptions. Electrical system drawings must be accessed on IDMS.

3.2.2 **UTILIZE** SDDs for electrical distribution systems for Double Shell Tank Farms to identify electrical loads de-energized.

3.2.3 **IF** backup generator(s) failed to Auto-Start, **START** generator manually using appropriate operating procedure.

3.2.4 **IF** power failure may continue for an extended period, **EVALUATE** placing portable generators/air compressors to supply power and air for critical systems.

3.2.5 **ENSURE** any portable generators/air compressors used are started in accordance with applicable procedures.

**NOTE** - A total loss of electrical power results in a loss of remote waste tank surveillance capabilities due to a loss of instrumentation. It may require implementation of local surveillance activities and monitoring.

- A power source for charging portable surveillance and monitoring equipment may be needed if the outage duration exceeds a shift.

3.2.6 **IF** loss of power results in a loss of remote waste tank surveillance capabilities due to loss of instrumentation, **ESTABLISH** local or manual monitoring for important waste tank parameters such as:
- Chemical hazards (gas/organic vapor)
- Radiological hazards (contamination/airborne/dose rates)
- Waste tank pressure
- Waste tank level indications.
3.2 Follow-on Actions (Cont.)

3.2.7 **EVALUATE** need for portable/emergency lighting for areas or buildings affected by power failure and/or need to release non-essential personnel from affected areas/buildings.

3.2.8 **CHECK** affected fire alarm systems that are provided with battery backup AND
**REPLACE** batteries once every 24 hours.

3.2.9 **NOTIFY** fire department of fire alarm systems affected by power failure.

3.2.10 **FOR** fire alarm systems that are affected by loss of power **ESTABLISH** fire surveillance as needed.

3.2.11 **EVALUATE** conditions against reporting requirements of TFC-OPS-OPER-C-24, “Occurrence Reporting and Processing of Operations Information”.

3.2.12 **IF** conditions have stabilized, **TURNOVER** responsibilities of the affected area(s) to the appropriate Shift Manager(s), including at a minimum, discussion of the following topics during turnover:

3.2.12.1 **ENSURE** waste Tank Farms instrumentation is returned to service and operating per approved operating procedures.

3.2.12.2 **RESTART** failed equipment (i.e., compressors, instrumentation, etc.) by approved operating procedures.

3.2.12.3 **ONCE** normal air/power systems have been returned to service, **ENSURE** portable generators/air compressors have been shut down per approved operating procedures as applicable.

3.2.12.4 **IF** temporary lighting or other equipment was installed, **ENSURE** lighting/equipment is removed and properly stored or returned to organization it was obtained from.
Response to Unplanned Loss of Electrical Power

4.0 EXIT CRITERIA

4.1.1 Normal power and operations are restored to Tank Farm facilities.

4.1.2 Conditions are stable and affected personnel informed of any remaining abnormal conditions.

4.1.3 ANNOUNCE exiting TF-AOP-012 over Tank Farm radio channel(s) AND SEND SOEN message.

5.0 RECORDS

No records are generated during the performance of this procedure.

The performance of this procedure generate no records.

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.