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1. Observation Guidelines

1.1 Each section of the existing onsite observation form has been broken out by sections and made available for utilization as a self assessment tool during the interim years between the formal onsite observation process conducted every three years.

Each section is an exact copy of the questions and criteria used during the onsite observation process.

1.2 Cooperatives are encouraged to use these sections as part of their on-going Safety Improvement Plan to target specific improvement areas found during their formal onsite observation process or areas they have individually prioritized.

1.3 The idea is to identify areas for improvement; initiate planned actions to meet improvement objectives and assess progress on a systematic basis to ensure the improvements have been institutionalized into normal operations.

1.4 Cooperatives can select and self assign to their cooperative each onsite self assessment section that pertains to their identified improvement areas.

PDF versions of these forms will also be available at the RESAP home page under Self Assessment Forms so you can download and utilize them within your self assessment process.

1.5 Once your self assessment hard copy is completed you can enter your finding online and submit. The person conducting the assessment, the date and assessment results will be saved in the system, allowing you to monitor and track your progress.

1.6 Your self assessment process is designed by your cooperative team as part of a continuous safety improvement process.

When planning your assessment process statewide safety professionals, peer to peer cooperative observers or in-house cooperative employees can be used to conduct these assessments, it is entirely up to each cooperative. The key is having a formalized plan that is monitored and reevaluated on a regular basis to ensure objectives are being met.

2. System Identification

D.1 Name of person making these online entries.

D.2 Email address of person making these entries.

D.3 Date or scheduled date (mm/dd/yyyy) of this inspection.

D.4 Name of the system General Manager/CEO:

D.5 Self Assessment performed by:

- Organization Employee
- Statewide Personnel
- Outside service provider
- Other

D.6 Select the type of audit being performed at this system.

- RESAP observation was announced to many.
- RESAP observation was announced to a select few.
- RESAP Observation is unannounced.
- RESAP observation is section based in calendar yr.

15. Substations

15.1 Substations are adequately secured with walls or fences, doors or gates, and suitable locking mechanisms.

Criteria:

Nothing on these sites would facilitate breaching these barriers.

Fences and barbed wire strands are in very good condition.

Fence gaps and/or washouts are four inches or less.

Gate fastening mechanisms and hardware provide substantial barrier to unauthorized entry.

Nearby facilities, structures, and stored materials are clear of substation.

ref: NESSC Rule Section 110A

- Exceeds Requirements
- Satisfies All Requirements
- Partially Satisfies Requirements
- Fails to Satisfy Requirements
- N/A

15.2 Substation fences, structures, and equipment are interconnected to a grounding grid for safe access and operation.

Criteria:

Fence fabric and barbed wires are connected to the grid as required.

All gates are connected in an effective manner to the grounding grid.

All equipment cases are connected to the grid as recommended by the manufacturers.

All structure components are grounded to the grid.

All switching devices are grounded as recommended and required.

ref: NESC Rule 123/IEEE Std. 80-2000

- Exceeds Requirements
- Satisfies All Requirements
- Partially Satisfies Requirements
- Fails to Satisfy Requirements
- N/A

15.3 Substation hazard identification signs meet the following specifications and industry standards.

Criteria:

"Warning" signs of the proper design, wording, and color are conspicuously displayed on all sides and entrances of the substations.

"Danger" signs of the proper design, wording, and color are displayed on the inside of substations (RUS and OSHA Standards).

Visibility and condition of the signs are good.

ref: NESC Rule 110A1/Section 411 D/ANSI Z535

- Exceeds Requirements
- Satisfies All Requirements
- Partially Satisfies Requirements
- Fails to Satisfy Requirements
- N/A

15. Substations

15.4 Clearances exceed the minimum requirements of the National Electrical Safety Code in all areas for the voltages involved.

ref: NESC Rule 124A1 Table 124-1 / 124-2

- Exceeds Requirements
- Satisfies All Requirements
- Partially Satisfies Requirements
- Fails to Satisfy Requirements
- N/A

15.5 Substation areas and equipment show signs of regular maintenance and inspections.

Criteria:

Structures and devices are in very good condition (no evidence of oil leaks) and properly grounded.

Switching devices are properly secured.

Circuit and equipment identification is very good.

Gravel areas are level and free of weeds, debris, and stored materials.

ref: RUS Bulletin 1724E-300 Design Guide for Rural Substations

- Exceeds Requirements
- Satisfies All Requirements
- Partially Satisfies Requirements
- Fails to Satisfy Requirements
- N/A

15.6 Substation batteries are maintained in a safe manner and hazard precautions are evident in the following areas.

Criteria:

Battery banks include ventilation systems, pertinent hazard identification signs, appropriate electrical and light wiring. PPE equipment for battery banks includes: splash goggles, face shield, eye wash, splash apron and protective barrier gloves available.

Adequate fire protection is available in banked battery locations and area is relatively free of combustible materials.

ref: IEEE-450. "Recommended Practice for Maintenance, Testing and Replacement of Large Lead Storage Batteries for Generating Stations and Substations"

OSHA 1925.403 / OSHA 1910.178 subparagraph (g)

NFPA 70E "320.8 Personnel Protective Equipment"

OSHA 29 CFR 1910.151(c) NFPA 70E, Section 320.9 1910.137

- Exceeds Requirements
- Satisfies All Requirements
- Partially Satisfies Requirements
- Fails to Satisfy Requirements
- N/A

15.7 Interviewed employees can explain the substation switching protocols that are used for accomplishing routine procedures.

ref: 1910.269(a)(2)

- Exceeds Requirements

15. Substations

- Satisfies All Requirements
- Partially Satisfies Requirements
- Fails to Satisfy Requirements
- N/A

15.8 The overall evaluation of the onsite field observation team for this section of the assessment is as follows:

Criteria

Strong performance - Questions evaluated as exceeds or satisfies all requirements

Satisfactory performance - Questions evaluated as satisfies all requirements, could be a small number evaluated as exceeds

Generally satisfactory with minor areas for improvement - Questions evaluated as satisfies all or most requirements, improvement areas are minor

Key attention areas for improvement - Questions evaluated as partially satisfies or fails to satisfy requirements in important improvement areas

- Strong Performance
- Satisfactory Performance
- Generally Satisfactory
- Key Attention Areas for Improvement