**[Entity Name] Procedure**

**Protection System Operations and Misoperations**

Version; vX.X

Table of Contents

[1.0 Introduction 3](#_Toc21938082)

[2.0 References 3](#_Toc21938083)

[3.0 Acronyms and Terms 3](#_Toc21938085)

[4.0 Responsibilities 5](#_Toc21938086)

[5.0 Procedures for When a BES Interrupting Device Operates 6](#_Toc21938087)

[6.0 Training 10](#_Toc21938088)

[7.0 Auditing 10](#_Toc21938089)

[8.0 Document Controls Detail 11](#_Toc21938090)

[9.0 Attachments 1](#_Toc21938091)

1. Introduction
	1. Purpose

This procedure ensures that Protection System Operations and Misoperations at each Facility managed by [Entity Name] are reported in a timely manner by Assigned Managers and analyzed by the supporting Electrical Engineers; that the causes of Misoperations are investigated and, if possible, identified; and that, if possible, Corrective Actions Plans are developed and implemented.

This procedure is also intended to ensure that the [Entity Name] Facilities identified in Section 1.2.3 comply with NERC Standard PRC-004. The purpose of PRC-004 is to identify and correct the causes of Misoperations of Protection Systems for BES Elements.

* 1. Scope
		1. This procedure defines the requirements that are applicable when a BES Interrupting Device operates, including reporting requirements, analysis of BES Interrupting Device operations, identification of Misoperations, investigation of the cause of Misoperations, and the development and implementation of Corrective Action Plans.
		2. This procedure applies to all Facilities.
		3. As of the date of this version of the procedure, the following are obligated to demonstrate compliance with PRC-004:
* Insert Facility Name 1
* Insert Facility Name 2
* Insert Facility Name 3

As of the date of this version of the procedure, the following are **not obligated** to demonstrate compliance with PRC-004:

* Insert Facility Name 4
* Insert Facility Name 5
* Insert Facility Name 6
1. References
	1. NERC Reliability Standard PRC-004 (most recent version location)

[US Reliability Standards (nerc.com)](https://www.nerc.com/pa/Stand/Pages/USRelStand.aspx)

* 1. NERC Glossary of Terms Used in Reliability Standards

[Glossary\_of\_Terms.pdf (nerc.com)](https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf)

1. Acronyms and Terms

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| BES | Bulk Electric System |
| Mvar | Mega Volt Ampere Reactive |
| MW | Megawatt |
| NERC | North American Electric Reliability Corporation |
| OPGW | Optical Power Ground Wire |
| PRC | Protection and Control |
| RAS | Remedial Action Scheme |
| UFLS | Underfrequency Load Shedding |
| UVLS | Undervoltage Load Shedding |

|  |  |
| --- | --- |
| **Term** | **Definition** |
| BES Interrupting Device | A BES Element, typically a circuit breaker or a circuit switcher that has the capability to interrupt fault current |
| Composite Protection System | The total complement of Protection System(s) that function collectively to protect an Element. Backup protection provided by a different Element’s Protection System(s) is excluded. *(defined in PRC-004)* |
| Corrective Action Plan | A list of actions and an associated timetable for implementation to remedy a specific problem. *(defined in NERC Glossary of terms)* |
| Element | Any electrical device with terminals that may be connected to other electrical devices such as a generator, transformer, circuit breaker, bus section, or transmission line. An Element may be comprised of one or more components. *(defined in NERC Glossary of terms)* |
| Facility or Facilities | A set of electrical equipment that operates as a single Bulk Electric System Element (e.g., a line, a generator, a shunt compensator, transformer, etc.) managed by the [Entity Name] business |
| Form | Protection Systems Operations Form (set forth in Attachment A to this procedure) |
| Misoperations | The failure of a Composite Protection System to operate as intended for protection purposes. Any of the following is a Misoperation:1. **Failure to Trip – During Fault** – A failure of a Composite Protection System to operate for a Fault condition for which it is designed. The failure of a Protection System component is not a Misoperation as long as the performance of the Composite Protection System is correct.
2. **Failure to Trip – Other Than Fault** – A failure of a Composite Protection System to operate for a non-Fault condition for which it is designed, such as a power swing, undervoltage, overexcitation, or loss of excitation. The failure of a Protection System component is not a Misoperation as long as the performance of the Composite Protection System is correct.
3. **Slow Trip – During Fault** – A Composite Protection System operation that is slower than required for a Fault condition if the duration of its operating time resulted in the operation of at least one other Element’s Composite Protection System.
4. **Slow Trip – Other Than Fault** – A Composite Protection System operation that is slower than required for a non-Fault condition, such as a power swing, undervoltage, overexcitation, or loss of excitation, if the duration of its operating time resulted in the operation of at least one other Element’s Composite Protection System.
5. **Unnecessary Trip – During Fault** – An unnecessary Composite Protection System operation for a Fault condition on another Element.
6. **Unnecessary Trip – Other Than Fault** – An unnecessary Composite Protection System operation for a non-Fault condition. A Composite Protection System operation that is caused by personnel during on-site maintenance, testing, inspection, construction, or commissioning activities is not a Misoperation. *(defined in PRC-004)*
 |
| PRC-004 | NERC Standard PRC-004 |
| Protection System | * Protective relays which respond to electrical quantities,
* Communications systems necessary for correct operation of protective functions,
* Voltage and current sensing devices providing inputs to protective relays,
* Station dc supply associated with protective functions (including station batteries, battery chargers, and non-battery-based dc supply), and
* Control circuitry associated with protective functions through the trip coil(s) of the circuit breakers or other interrupting devices.

Examples include: Protective relays; circuit breakers; OPGW cables; instrument transformers; and current transformers. *(bullets are from NERC Glossary)* |
| Remedial Action Schemes | A scheme designed to detect predetermined System conditions and automatically take corrective actions that may include, but are not limited to, adjusting or tripping generation (MW and Mvar), tripping load, or reconfiguring a System(s). *(defined in NERC Glossary)* |

1. Responsibilities

|  |  |
| --- | --- |
| **Role** | **Responsibility** |
| Assigned Manager | Responsible for reporting operation of BES Interrupting Devices and coordinating with and supporting Electrical Engineer as necessary with respect to analyzing BES Interrupting Device operations, identifying Misoperations, investigating the cause of Misoperations, and developing and implementing Corrective Action Plans, and coordinating notifications if necessary to other owners. |
| Compliance Department | Responsible for coordinating notifications if necessary to other owners and for review and sign-off of a Form |
| Department Head | Can be assigned responsibilities within this procedure by the Assigned Manager |
| Designated Assigned Manager | Can be assigned responsibilities within this procedure by the Assigned Manager  |
| Electrical Engineer | Responsible for analyzing BES Interrupting Device operations, identifying Misoperations, investigating the cause of Misoperations, and developing and implementing Corrective Action Plans. |
| Department Head | Responsible for coordinating notifications if necessary to other owners and for review and sign-off of a Form |

1. Procedures for When a BES Interrupting Device Operates
	1. Completion of Section 1 of the Form by Assigned Manager
		1. No later than 5 business days after either
2. a BES Interrupting Device has operated at a Facility *or*
3. the Facility receives notification from another entity of operation of a BES Interrupting Device operation by a Composite Protection System for which the Facility shares Misoperation identification responsibility *or*
4. the Facility receives notification from another entity of operation of a Protection System component intended to operate as backup protection for a condition on the Facility’s BES Elements, the Facility’s Assigned Manager shall do the following:
	* + 1. complete Section 1 of the Form;
			2. send the Form to the supporting Electrical Engineer and copy the appropriate Department Head and Compliance Department.
	1. Completion of Section 2 of the Form by the Electrical Engineer: Misoperation Analysis
		1. The Electrical Engineer shall be responsible for ensuring event files generated by relays or PI data are pulled and will coordinate, as necessary, with the Assigned Manager and others.
		2. No later than 120 calendar days after the date on which the BES Interrupting Device has operated at a Facility or if the Facility receives notification from another entity as contemplated in Section 5.1.1 of this procedure, within the later of 60 calendar days of receipt of the notification or 120 days of the BES Interrupting Device operation, the Electrical Engineer shall identify whether the operation is:
* the kind of operation covered by PRC-004, and
* if so, a Misoperation.
	+ - 1. Relevant criteria for determining whether operation is covered by PRC-004:
				1. Facilities subject to PRC-004 – PRC-004 applies to Protection Systems, with the following exclusions (which are excluded from, and not subject to PRC-004):
* Non-protective functions that are embedded within a Protection System
* Protective functions intended to operate as a control function during switching
* Special Protective Systems (SPS)
* Remedial Action Schemes (RAS)
* Protection Systems of individual dispersed power producing resources identified under Inclusion I4 of the BES definition, where the Misoperations affected an aggregate nameplate rating of less than or equal to 75 MVA of BES Facilities.

PRC-004 also applies to underfrequency load shedding (UFLS) that intended to trip one or more BES Elements.

PRC-004 also applies to undervoltage load shedding (UVLS) that is intended to trip one or more BES Elements.

* + - * 1. Operations subject to PRC-004. PRC-004 applies only when:

the operation was caused by a Protection System or by manual intervention in response to a Protection System failure to operate; *and*

the owner of the BES Interrupting Drive owns all or part of the Composite Protection System components; *and*

the Protection System components owned by owner of the BES Interrupting Device caused the BES Interrupting Device operation or the failure of the protection System components owned by the owner of the BES Interrupting Device to operate required the manual intervention.

* + - 1. Relevant criteria for determining whether an operation is a Misoperation: The definition of a Misoperation and guidance for determining whether an operation is a Misoperation are set forth in PRC-004.
			2. The Electrical Engineer shall complete Section 2 of the Form within the time frames provided for Section 5.2.2.
				1. If the operation is not the kind of operation covered by PRC-004 or if the operation was not a Misoperation, the Electrical Engineer shall indicate this and sign Section 2 of the Form and forward the Form to the Compliance Department. Make sure to fill in the date that the operation was determined not to be a Misoperation. The rest of the Form should not be completed.
				2. If the operation was a Misoperation, the Electrical Engineer should fill in the date that the operation was a Misoperation, the Electrical Engineer should fill in the date that the operation was determined to be a Misoperation, sign Section 2 of the Form. The Electrical Engineer shall forward the Form to the Compliance Department. No other sign-offs are required at this point.
				3. NOTE: It is important to note the exact date that the Protection System was determined to have a correct operation or a misoperation. The determination date is one of the most frequently noted insufficiencies with PRC-004 findings.
	1. Notification to Other Owners or Entities
		1. Notification to Other Protection System Owners that Share Misoperation Identification Responsibility
			1. No later than 120 calendar days after the date on which the BES Interrupting Device at the Facility has operated, notification shall be provided to other owners that share Misoperation responsibility if:
				1. the Facility owns the BES Interrupting Device; *and*
				2. the Facility shares ownership of the Composite Protection System with another entity; *and*
				3. The Electrical Engineer has determined, pursuant to this procedure, that a Misoperation has occurred or cannot rule out a Misoperation; *and*
				4. The Electrical Engineer has determined that the Facility’s Protection System components did not cause the BES Interrupting Device operation or cannot determine whether the Facility’s Protection System components caused the BES Interrupting Device operation.
			2. The Electrical Engineer should determine if notification is required by completing question 3 of Step 4 in Section 2 of the Form. If notification is required to be made, the Electrical Engineer shall notify the Compliance Department, the Assigned Manager, and the Department Head for the Facility that experienced the BES Interrupting Device Misoperation as soon as practicable.
			3. The Department Head or Assigned Manager shall coordinate with the Compliance Department regarding provision of the notification to the appropriate entity.
		2. Notification to Other Protection System Owners for Which Backup Protection Is Provided
			1. No later than 120 calendar days after the date on which the BES Interrupting Device at a Facility has operated, notification will be provided if the BES Interrupting Device operation was by a Protection System component intended to operate as backup protection for a condition on another entity’s BES Element.
				1. Notification will be provided to other Protection System owner(s) for which that back protection was provided.
			2. The Electrical Engineer should determine if notification is required by completing question 3 of Step 4 in Section 2 of the Form. If notification is required to be made, the Electrical Engineer shall notify the Compliance Department, the Assigned Manager, and the Department Head for the Facility that experienced the BES Interrupting Device Misoperation as soon as practicable.
			3. The Department Head or Assigned Manager shall coordinate with the Compliance Department regarding provision of the notification to the appropriate entity.
	2. Completion of Section 3 of the Form: Identification of Cause of Misoperation or Declaration that No Cause Identified
		1. When a Misoperation is identified, the Electrical Engineer shall act to determine the cause of the Misoperation.
			1. If the cause has been determined within 90 days of the date the Misoperation was identified, the Electrical Engineer shall indicate in Step 7 of the Section 3 of the Form the date the cause was determined and provide a description of the root cause and provide root cause analysis.
			2. If the cause has not yet been determined within 90 days after the date the Misoperation was identified, the Electrical Engineer should perform investigative actions to determine the cause at least once every full two calendar quarters after the date the Misoperation was identified, until one of the following occurs to complete the investigation: either
* the cause of the Misoperation is identified, *or*
* a declaration is made that no cause was identified.
	+ - * 1. If the cause is determined more than 90 days after the date the Misoperation is identified, the Electrical Engineer should indicate in Step 8 of Section 3 of the Form the date the cause was determined and provide a description of the root cause analysis. The Electrical Engineer should sign this portion of the Form and proceed in accordance with Section 5.5 of this procedure. No other sign-off is required at this point.
				2. If a declaration is made that no cause was identified, the Electrical Engineer should provide a declaration that no cause of the Misoperation was identified in Section 3 of the Form and forward the Form to the Assigned Manager, the Department Head, and the Compliance Department for review and sign-off in the order noted in the Form.
	1. Completion of Section 4 of the Form: Development and Implementation of a Corrective Action Plan or Declaration Regarding Corrective Actions
		1. Development of Corrective Action Plan
			1. No later than 60 calendar days after the date on which the cause of a Misoperation was identified, the Electrical Engineer Services shall *either*.
* develop a Corrective Action Plan for the identified Protection System component(s), *or*
* explain in a declaration why corrective actions are beyond the Facility’s control or would not improve BES reliability and that no further corrective actions will be taken.
	+ - 1. If the Electrical Engineer determines that corrective actions are beyond the Facility’s control or would not improve the BES reliability and that corrective actions will not be taken, the Electrical Engineer shall provide a declaration to this effect in Section 4 of the Form and forward the Form to the Assigned Manager, the Department Head, and the Compliance Department for review and sign-off in the order noted in the Form.
			2. If a Corrective Action Plan is developed, the Electrical Engineer should do the following:
				1. describe the Corrective Action Plan, and provide the associated targeted timetable for completion of actions under the Corrective Action Plan, *and*
				2. evaluate the Corrective Action Plan’s applicability to the Facility’s Protection Systems and Protection Systems at other Facilities owned by [Entity Name].
			3. If a Corrective Action Plan is developed, the Electrical Engineer and the Assigned Manager for the Facility should proceed with Section 5.5.2 of this procedure.
		1. Implementation of Corrective Action Plan
			1. The Electrical Engineer and the Assigned Manager shall coordinate development and implementation steps necessary to ensure completion of the Corrective Action Plan.
				1. Actions under the Corrective Action Plan may be updated or modified as necessary. If an action is updated or modified, the Electrical Engineer will document his in the Form.
				2. Timetables for an action under the Corrective Action Plan may also be updated or modified as necessary. If a timetable for an action is updated or modified, the Electrical Engineer shall document this in the Form.
				3. Evidence of completion of actions in a Corrective Action Plan should be retained and provided to the Compliance Department.
1. Training
	1. Requirements and responsibilities set forth in the procedure are reviewed with the Assigned Manager and if appropriate, any Deputy Assigned Manager for each of the Facilities on a periodic bases (not greater than X years/months) and training is provided on an as-needed basis.
	2. Requirements and responsibilities set forth in the procedure are also reviewed with the Electrical Engineers on a periodic basis (not greater than X years/months) and training is provided on an as-needed basis.
2. Auditing

Documentation includes a completed Form with respect to each BES Interrupting Device operation at a Facility, reports, PI data, emails, logs, records, analyses of sequence of events, relay targets, disturbance monitoring equipment records, test results, work orders, maintenance records, and work management program records.

1. Document Controls Detail

This document and the list of associated Facilities will be reviewed as changes occur and on a periodic basis no greater than one (1) calendar year.

|  |  |
| --- | --- |
| **Document Name** | **Procedures for Protection System Operations and Misoperations** |
| **Issue Date** | MM/DD/YYYY | **Next Review****Date** | MM/DD/YYYY |
| **Issuing Authority** | First Last | Management Title | **Content Owner** | First Last | Title |
| **Rev****#** | **Revision Date** | **Revision Detail** | **Issuing Authority** | **Content Owner** |
| 1.0 | MM/DD/YY | Original version. | First Last | First Last |
| 2.0 | MM/DD/YY | Yearly review. No changes made | First Last | First Last |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Attachments

**ATTACHMENT A – PROTECTION SYSTEM OPERATIONS FORM**

|  |  |  |
| --- | --- | --- |
|  | **Protection System** |  |
| **Referencing Document:** | **Operations Form** | **Revision: X**  |
| **NERC-PRC-004** |  | **Rev Date: MM/DD/YYYY** |

## **Generator Protection System Operations, Misoperations and Corrective Action Form**

**This form is a critical component of reliable operations and covers correct operations and misoperations for the Facilities applicable.. Care should be taken with each step to ensure completeness and accuracy. Note that this completed form will serve as evidence of compliance for PRC-004.**

**SECTION 1 - BES INTERRUPTING DEVICE OPERATION INFORMATION**

**STEP 1: Within 5 business days after either**

1. **a BES Interrupting Device operates at the Facility** *or*
2. **being notified by another entity of the operation of a BES Interrupting Device by Protection System equipment for which the Facility shares Misoperation identification** *or*
3. **being notified by another entity of operation of Protection System equipment intended to operate as backup protection for a condition on the Facility’s BES Elements, the Assigned Manager should provide the following information once a BES Interrupting Device operates**:

Facility Name:

Name and title of person completing this section of the form: Name:

Title:

Identify the following: equipment/device(s) that operated and use specific alpha numeric identification, Facility, type, rating, etc.; voltage of equipment device(s); and date and time that equipment/device(s) operated:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | Facility | Device | Device Type | Voltage (kV) | Date (mm/dd/yyyy) | Time (hh:mm:ss) |
| 1 |   |   |   |   |   |   |
| 2 |   |   |   |   |   |   |
| 3 |   |   |   |   |   |   |
| 4 |   |   |   |   |   |   |
| 5 |   |   |   |   |   |   |

Describe events leading up to the operation. Mention whether there was a planned outage or testing of equipment or compliance test conducted before the operation.

Describe in detail what happened when the equipment operated. If equipment is damaged, provide a specific description of what equipment is damaged (i.e., pothead, inverter, capacitor switch, turbine, etc.). Consider whether it would be helpful to provide drawings or drawing numbers to better identify components (i.e., breakers, switches, etc.) and their vendors.

**STEP 2:** After all of the information required under this Section 1 is filled out, the **Assigned Manager** should sign the Form and then send the Form and the data to **the supporting Electrical Engineer** and copy the **Department Head** and the **Compliance Department**.

Assigned Manager: Date:

**SECTION 2 - MISOPERATIONS ANALYSIS**

**STEP 3: The Electrical Engineer** will be responsible for ensuring event files generated by relays or PI data are pulled and will coordinate as necessary with the **Assigned Manager** and others to facilitate this.

**STEP 4: The Electrical Engineer** will provide the following information **within 120 days of the operation of the BES Interrupting Device** *or,* **if the Facility received notification from another entity, within the later of 60 calendar days of receipt of the notification or 120 days of the BES Interrupting Device operation**:

Name of Electrical Engineer completing this section of the form: Name:

1. Is the operation the kind of operation covered by PRC-004? Refer to Section 5.2.2.1 of the Procedures for Protection System Operations and Misoperations for guidance.

Yes No

**If the answer to question 1 above is no**, describe why (e.g., operation performed a non-protective function, operation performed a control function, operation affected an aggregate nameplate rating of less than or equal to 75 MVA, operation not caused by Protection System or failure of Protection System to operate, etc.):

1. **If the answer to question 1 was yes,** was the operation a Misoperation? Refer to Section 5.2.2.2 of the Procedures for Protection System Operations and Misoperations and PRC-004 for guidance.

Yes No

**If no**, describe why:

1. Does any other entity need to be notified of operation of the BES Interrupting Device?
	1. An owner that shares Misoperation identification responsibility should be notified if the following are **true**:

|  |  |
| --- | --- |
| **True or False?** |  |
|  | The Facility shares ownership of the Composite Protection System with another entity. |
|  | The Electrical Engineer has determined that a Misoperation has occurred or cannot rule out a Misoperation. |
|  | The Electrical Engineer has determined that the Facility’s Protection System components did not cause the BES Interrupting Device operation or cannot determine if the Facility’s Protection System components caused the BES Interrupting Device Operation. |

1. A Protection System owner for which backup protection is provided should be notified if the following are **true**:

|  |  |
| --- | --- |
| **True or False?** |  |
|  | The Facility’s Protection System is intended to operate as backup protection for a condition on another entity’s BES Element |
|  | The Facility’s Protection System operated as backup protection for a condition on another entity’s BES Element. |

**If another entity needs to be notified, inform the Compliance Department and Department Head for the Facility as soon as practicable.**

**STEP 5: If the answer to question 1 or 2 in Step 4 is no**, the **Electrical Engineer** should fill in the date that it was determined that the operation was a proper operation then sign below and forward the Form to the **Compliance Department**. Sections 3 and 4 of this Form should not be completed.

**If the answer to question 2 in Step 4 is yes**, the **Electrical Engineer** should fill in the date that it was determined that the operation was a Misoperation, sign below, and continue on to Section 3.

Date of proper operation determination:

Date of Misoperation determination:

Electrical Engineer: Date:

**SECTION 3 - ROOT CAUSE ANALYSIS**

The **Electrical Engineer** will complete this section.

**STEP 6:** Name of Electrical Engineer completing this section of the form:

Name:

**STEP 7:**

1. Within 90 days of the date the Misoperation was identified (see date in Step 5 of Section 2 above), was the cause of the Misoperation determined?

Yes No

**If the answer to question 1 above was yes**, identify the root cause, provide root cause analysis, and sign below, and then skip Step 8 and continue on to Section 4. If a third party contractor supported root cause analysis, please identify the contractor(s).

**Electrical Engineer**: Date:

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**If the answer to question 1 above was no**, continue to Step 8 after investigating the cause of the Misoperation in accordance with Section 5.4.1.2 of the Procedures for Protection System Operations and Misoperations.

**STEP 8:** After investigating the cause of the Misoperation in accordance with Section 5.4.1.2 of the Procedures for Protection System Operations and Misoperations, has the cause of the Misoperation been determined?

Yes No

**If yes**, identify the root cause, provide root cause analysis, the date the cause was identified, and sign below, and then continue on to Section 4. If a third party contractor supported root cause analysis, please identify the contractor(s).

Date cause of Misoperation was identified:

Electrical Engineer: Date:

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**If no**, provide a declaration below that no cause of the Misoperation was identified, indicate why, and sign below:

Electrical Engineer: Date:

If a declaration that no cause of the Misoperation is completed by the **Electrical Engineer**, the **Electrical Engineer** should forward the Form to the **Assigned Manager**, the **Department Head** and the **Compliance Department** for review and sign-off. Review and sign-off should occur in order noted below. Section 4 should not be completed.

*Note that signatures are only required below if declaration that no cause of Misoperation was identified is completed.*

1. Assigned Manager: Date:

2. Department Head: Date:

3. Compliance Department: Date: `

### **SECTION 4 - CORRECTIVE ACTION PLAN**

The **Electrical Engineer** will complete this section.

**STEP 9:** Name of Electrical Engineer completing this section of the form:

Name:

**STEP 10:** The Electrical Engineer will provide the following information **no later than 60 calendar days after the date on which the cause of a Misoperation was identified**:

Are corrective actions beyond the Facility’s control or would corrective actions not improve BES reliability?

Yes No

**If yes**, provide a declaration below that corrective actions are beyond the Facility’s control or would not improve BES reliability, and explain why this is the case, and indicate that no further corrective actions will be taken, and sign below:

Electrical Engineer: Date:

If a declaration regarding corrective actions is completed by the **Electrical Engineer**, the **Electrical Engineer** should forward the Form to the **Assigned Manager**, the **Department Head** and the **Compliance Department** for review and sign-off. Review and sign-off should occur in order noted below.

The rest of Section 4 should not be completed.

**If no**, then describe a Corrective Action Plan to reduce or eliminate further Misoperations. Specify actions to be taken and provide targeted timeframe for completion of such actions. Explain how actions will reduce or eliminate Misoperations in the future.

Does the Facility where the Misoperation occurred have other Protection Systems?

Yes No

**If yes,** evaluate the Corrective Action Plan’s applicability to these other Protection Systems:

Are there any other Facilities that have other similar Protection Systems as the Facility where the Misoperation occurred?

Yes No

**If yes,** evaluate and describe the Corrective Action Plan’s applicability to these other Protection Systems:

If a Corrective Action Plan is provided above, the **Electrical Engineer** should sign below and forward the Form to the **Assigned Manager**, the **Department Head** and the **Compliance Department** for review and sign-off. Review and sign-off should occur in order noted below.

Electrical Engineer: Date:

1. Assigned Manager: Date:
2. Department Head: Date:
3. Compliance Department: Date:

**STEP 11: Modifications to Corrective Action Plan. Modifications to a Corrective Action Plan can be made but must be documented.** Identify updates or changes to specific tasks or updates or changes to timetables below. Explain the reason for the update or change. Once the modifications are made, notify the **Compliance Department** and provide a copy of this modified Form to the **Compliance Department**.

Additional approval(s) may be sought from one or more of the representatives identified above depending on the nature of the modification.

**ATTACHMENT B – FACILITIES FORM**

|  |  |  |
| --- | --- | --- |
|  | **Protection System** |  |
| **Referencing Document:** | **Facilities Form** | **Revision: X**  |
| **NERC-PRC-004** |  | **Rev Date: MM/DD/YYYY** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Facility Code** | **Facility Name** | **Detail** | **PRC-004 Applicable?** | **Date** | **Issuing Authority** |
| AABB138 | Dripping Springs  | Legacy Facility. X breakers  | Yes | 06/18/07 | First Last |
| AACC345 | Little Barton Creek | 2020 new buildX breakers | Yes | 07/18/20 | First Last |