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MRO Internal Procedure: MRO Event Analysis Process

Prepared by: MRO Reliability Assessment & Performance Analysis Staff

Introduction:

This Midwest Reliability Organization (MRO) Event Analysis (EA) Process document is intended to be used as a guideline to assist MRO Registered Entities in reporting events and performing event analyses. This document outlines a process that facilitates greater communication and information exchange between registered entities and MRO.

One of the primary reasons for entities to perform an event analysis is to determine if there are lessons to be learned and shared with the industry. The analysis process involves identifying what happened, why it happened, and what can be done to prevent reoccurrence. Identification of the sequence of events answers the "what happened" question and determination of the root cause of an event answers the "why" question. It also allows for events to have cause codes or characteristics and attributes assigned, which can then be used by MRO or the NERC Event Analysis Subcommittee (EAS) to identify trends. Trends may identify the need to take action, such as a NERC Alert, or may support changes to Reliability Standards.

MRO's role in the Event Analysis process is to help to facilitate the process steps with an entity or multiple entities and to ensure that the effort is robust and the goals are achieved.

Process overview:

The ERO Event Analysis Process (EAP) Document is an effort between NERC and its Regional Entities and describes the EAP in the following steps:

Step 1. The registered entity assesses an event, determines the event category, and notifies the RE.

Step 2. A planning meeting or coordination call is held between the registered entity and the RE when possible.

Step 3. The registered entity submits a Brief Report (Appendix C) to the RE.

Step 4. The registered entity submits an Event Analysis Report (EAR) to the RE, if needed.

Step 5. Lessons learned documents are developed and shared with industry as appropriate.

Step 6. The EAP is closed.

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1

The following will explain MRO's expectations for each of these steps.

Step 1: The registered entity assesses an event, determines the event category, and notifies MRO.

Prior to considering if an event fits an EAP category the registered entity should determine if notification is required per the Department Of Energy's Electric Emergency Incident and Disturbance Report OE-417, NERC's Event Reporting EOP-004 Attachment, or other NERC Reliability Standards.

EAP reporting does not exempt the registered entity from mandatory reporting requirements governed by regulatory authorities or NERC Reliability Standards.

The NERC EAS has developed several addendums which can aid in categorizing events or in preparing reports. The Addendum for Category 1a Events is intended to assist identifying events that should be categorized as 1a events.

The Addendum for Events with Failed Station Equipment should be used to submit detailed data and information regarding AC substation failed equipment. The remaining addendums are intended to be aids for report development for event reports with specific characteristics such as when EMS outages, loss of offsite power to a nuclear station, or when protection mis-ops are involved in an event.

MRO Event Analysis Staff will reach out to entities that provide notification through EOP-004 or DOE OE-417 to verify if the event is a qualifying event under the NERC EAP. Event Categories are defined in the NERC EAP. Entities may proactively communicate the proposed determination regarding event categorization or any EAP questions to MRO at:

events@mro.net. This email should be used for all event analysis communications with the MRO.

Step 2: A planning meeting or coordination call is held between the registered entity and MRO.

MRO recognizes that the registered entities have differing levels of familiarity and experience with the Event Analysis Process. In many cases, the planning meeting will take the form of MRO communicating via email with a registered entity to establish the following:

1. Confirm the NERC event category.

2. Determine the level of analysis, Brief Report for Category 1 and 2 events or Event Analysis Report for Category 3 and above.

3. Identify the roles for the registered entity(ies), MRO, and NERC (generally for Cat 3 and above). If the event extends across multiple Regions a lead Region will be designated.

4. Establish milestones and target dates for completing reports, lessons learned, and other necessary analysis for events requiring detailed analysis. Should additional time be needed, beyond the target dates to complete the analysis, this can be granted by MRO on a case-by-case basis as necessary.

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RESULTS
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2

5. Identify the need for a data retention hold (generally for Cat 3 and above).

6. Identify data and information confidentiality issues.

A formal planning call will be scheduled if MRO determines there is a need for a coordination call or it is requested by the registered entity and for all Category 3 and above events.

Step 3: The registered entity submits a Brief Report (Appendix C) to MRO.

A Brief Report is prepared by each impacted registered entity for all qualifying events. It is sent to MRO for review. MRO may request additional or clarifying information to be included in the Brief Report. When MRO and the registered entity are satisfied that the Brief Report provides a clear description of the event, MRO will forward the Brief Report to NERC. The Brief Report includes items identified in Appendix C: Brief Report Template. The Brief Report template may also be used for non-qualifying events that produce useful lessons learned for the industry.

In the Brief Report, registered entities are encouraged to include one-line diagrams or other diagrams and representations of the facility(ies) involved in the event. The final Brief Report should address corrective actions and recommendations related to the event's causal factors and any identified lessons learned. Positive outcomes identified during an event should be documented.

Step 4: The registered entity submits an Event Analysis Report (EAR) to MRO, if needed.

An EAR is required for more significant events (Category 3 and above) and may be requested by MRO for lower- level events. MRO will formally send a Data Hold Notice for any event which requires an EAR. An EAR is prepared by the impacted entity, a group of impacted entities, or relevant members of an event analysis team as defined in the planning meeting. The EAR addresses in detail the sequence of events as they happened, the identified causal factors, and the appropriate corrective actions. Appendix D: Event Analysis Report Template can be used as a guideline. Once completed, the EAR is sent to the applicable REs for review. These documents are sent by the lead RE to NERC upon completion of the REs' review. Note that Appendix 8 of the Rules of Procedure provides additional guidance for analysis of larger events

In the EAR, registered entities are encouraged to include one-line diagrams or other diagrams and representations of the facility(ies) involved in the event. The final EAR should address corrective actions and recommendations related to the event's causal factors and any identified lessons learned. Positive outcomes identified during an event should be documented.

If any applicable governmental authorities (AGAs) initiate a formal review process in conjunction with NERC, the decision on the composition of the event analysis team, the team lead, the information needed from affected registered entities, and the required scope of the analysis will be discussed and agreed upon by the AGAs and NERC executive staff.

Step 5: Lessons learned documents are developed and shared with industry as appropriate.

Proposed lessons learned should be drafted by a registered entity utilizing Appendix E: Lessons Learned Template, and should be submitted to MRO. The lessons learned should be detailed enough to be of value

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3

to others, but should not contain data or information that is deemed confidential. When possible, one-line diagrams or other representations should be included to enhance the information provided in the lessons learned. Vendor-specific information should not be included unless it is discussed and coordinated with the vendor. If dissemination of vendor-specific information is beneficial, it may be pursued outside the EAP.

Lessons learned (LL) may be reviewed by the MRO Protective Relay Subgroup prior to submittal to NERC. Selected technical groups including the Energy Management System Working Group (EMSWG), the NERC Event Analysis Subcommittee (EAS), and NERC staff will review the LL to determine if it should be developed for industry wide dissemination. The EAS will form a small ad hoc group to assure completeness and appropriateness of the LL. The registered entity that submitted the LL will also be invited to participate on the ad hoc group. The LL will be reviewed by NERC technical writers and approved by the full EAS prior to posting on the NERC website.

Lessons Learned from Other Occurrences

Any occurrence on the Bulk Electric System may yield lessons of value to the industry. Lessons learned can include the adoption of operating procedures, the identification of generic equipment problems, or the need for enhanced personnel training. In such cases an event analysis would not be required, however MRO encourages registered entities to share any potential lessons learned that could be useful to others in the industry.

Step 6: The EAP is closed.

Following the receipt of event reports, NERC and MRO will evaluate and close the event in the EAP. MRO will notify the registered entity(ies) involved that an event has been closed in the EAP upon notification from NERC. This closure in general is the end of the collection and analysis of data for the event in the EAP space only. The event may remain open in the compliance space which is outside the scope of this document.

If there was a data hold as part of the EA process, the hold will be released following the event being closed by both EA and Compliance groups.

Cause Coding

Cause coding of the event is outside the scope of the NERC EAP.

Cause coding is valuable for identifying trends and all registered entities are encouraged to participate.

NERC and MRO EA staffs work with the registered entity to assign cause codes to the event. NERC and MRO meet to prepare a Cause Code Assignment Summary with preliminary cause codes based on the information from the Brief Report or EAR and other available information. Additional information may include mis-op reports and NRC incident reports. This summary is reviewed with the registered entity and modified based on any additional insight the registered entity provides during the review. The review may take place on a call with the registered entity, NERC, and MRO or through email exchanges for less significant events. A final draft Cause Code Summary is prepared by NERC and reviewed by the registered entity and MRO. In general, any changes submitted by the registered entity are incorporated

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4

into the final summary document. On the occasion that MRO or NERC oppose the changes submitted by the registered entity additional discussion between the parties will continue until agreement is reached.

MRO provides a final Cause Code Summary to the registered entity with an acknowledgement that the event is closed in the cause coding space. The event may remain open in the compliance space which is outside the scope of this document.

Event reviews with MRO Organizational Groups

MRO staff reviews unique and/or significant events with its Reliability Advisory Council (RAC) and Protective Relay Subgroup (PRS) to assure analysis is robust, cause analysis is reasonable, and recommendations or lessons learned appropriate. Staff may also request that a registered entity present their event analysis to one of the Organizational Groups. This discussion among peers has been very beneficial to all participants.

Additionally, semi-anonymous high-level quarterly reports are made to the MRO Reliability Advisory Council and the MRO Board of Directors for all events.

Confidentiality Considerations

Information and data designated as confidential by the entity providing the data/information in the course of an event analysis shall be treated as confidential by MRO. In addition, all Critical Energy Infrastructure Information (CEII) shall be treated accordingly, and may be designated as CEII by the entity supplying the information or by NERC or MRO.

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5