Attributes of a Quality Event Analysis Report

January 2015

Criteria for Quality Reports

Quality of the event analysis report is vital for the success of the NERC Event Analysis program. The NERC EA process[1] was originally approved by the NERC Board of Trustees (Board) in February 2012. The Board charged the NERC Operating Committee to review the process periodically and revise as necessary. A good quality report can enhance the value provided by the program immensely. A thorough event analysis should precede the writing of the report. The analysis should be an organized disciplined approach and lead to the determination of the causal sequences and corrective actions.

The Event Analysis Process consists of three steps. The first step is Analysis/Investigation. Typically, a team of people will convene and analyze the event to determine what happened, why it happened and develops corrective action plans to prevent reoccurrence. The second step is to prepare a report detailing the analysis team's findings. The third step is to take that report and assign cause codes, per the NERC Cause Code Assignment Process (CCAP) Manual[2] to the event for trending with other events. Each step is reliant on the previous step's quality. In other words, a lack of quality in one step, will ensure a lack of quality in the succeeding steps and a lack of quality overall. This document is intended to serve as a guide for the elements to include in an event report that will aid NERC Event Analysis to perform quality trending.

The following are key elements that would be included in a quality report.

- Contributing causes and, if possible, root cause are identified, with the reasoning detailed. It is not intended that these be submitted as cause codes, and should be written in a way clearly understood by the reader (without the need to refer to any cause coding documentation).

- Conclusions/Recommendations are developed.

- Lessons learned are developed to share with the industry.

- Sequence of events is accurate and consistent. This is a stand-alone section, and should not refer the reader to a narrative section, to figure out the sequence. If providing a "time" sequence of events, and when supporting data is available, the time should be recorded as accurately as possible and placed into a time sequence. Cause sequence of events may be provided, if the causal sequence has, in fact, been determined.

- Follow up plans and associated responsible members are identified. There is no desire to have the names of persons in the report as person responsible for the actions (though the entity or entities should have them, so an actionable plan and ability to track the status is possible).

- Detailed background on the event and system is provided. Provide the context of the event, the relevant factors which establishes the conditions in which the event occurred.

- Charts/Plots/Graphs are provided to strengthen the narrative. Please explain the information pulled from the charts in a clear manner within the report, not leaving it to the reader to figure it out (or guess).

- Single Line diagrams of the relevant portions of the electrical system. As a reminder, even if a portion of the system is not normally considered BES, but the subsystem is relevant to the understanding of the event, this should also be provided.

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[1] http://www.nerc.com/pa/rrm/ea/EA%20Program%20Document%20Library/Final_ERO_EA_Process_V2.1.pdf

[2]
http://www.nerc.com/pa/rrm/ea/EA%20Program%20Document%20Library/NERC_Cause_Code_Assignment_Process_March_2014_rev2 0140324%20SLS.pdf

- Correspondence with neighbors/RC is clearly narrated.

- Status of critical subsystems is identified such as SE, AGC, ICCP etc. for EMS events.

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- Considerations or things to consider for the report:

- Do statements made in the report (such as the status of system line-up) provide context or explain why they are important?

- Do the one-line diagrams (or other charts/diagrams) provided show all of the components cited in the report?

- Does nomenclature (labels, descriptions, etc.) used in the report match the nomenclature found on diagrams?

Quality, detailed analysis/investigations lead to quality reports. Good quality event analysis reports allow for more accurate cause coding of events. Accurate cause coding leads to better trending. Better trending leads to timely identification of issues being communicated back to the industry.

Revision History

Rev.	Date	Reviewers	Revision Description
0	June 3, 2013		Initial draft by Venkat Tirupati
1	28 January 2015		Clarification of points, based on lessons learned since first drafted