

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# DRAFT Attributes of a Quality Lessons Learned

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RELIABILITY | ACCOUNTABILITY



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# Criteria for a Quality Lessons Learned

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NERC pursues a culture of reliability excellence that promotes a review and analysis of system events. Once the causes of Bulk Electric System (BES) events are identified and corrective actions are implemented, it is important that any lessons that were learned be shared with the industry to increase the probability of desirable outcomes and reduce the impact of undesirable events. High quality and detailed Lessons Learned (LLs) help educate the industry on issues that are being experienced.

## Identifying lessons learned

An After Action Review (AAR)<sup>1</sup>, is a process that can be used to extract lessons from experiences that have happened during an event that may be beneficial to others. LLs can be identified from events by asking the following questions.

What was the expected operational state of the system or intended outcome (if the system was in a transition state) at the time of the event?

- What actually happened?
- Why did it happen that way?
- What changes could be made or procedures improved to get the desired outcome?
- Identify the things that happened as desired.

## Topic areas that have been identified as high priority for the development of lessons learned<sup>2</sup>

- Human Performance
  - Management Controls
  - Process and Procedures
- Common Equipment Failures
- SCADA/EMS Events
- System Maintenance
  - Poorly Planned Change Control
- Load Shedding
  - Poor Planning or Execution
- Relay or Special Protection System Misoperations
  - Poor Planning or Coordination
- Catastrophic Weather

## Characteristics of a quality Lessons Learned

- The lesson is clearly identified.

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<sup>1</sup>An after action review (AAR) is a structured review or de-brief process for analyzing what happened, why it happened, and how it can be done better by the participants and those responsible for the project or event.

<sup>2</sup> Identified within the Event Analysis Subcommittee (EAS).

- The lesson contains sufficient information to understand the issue(s).
- The lesson visibly identifies the difference between the actual outcome and the desired outcome.
- The inclusion of an accurate sequence of events should be considered when it provides clarity.
- Redacted single line diagrams or other visual aids can be included to strengthen the readers understanding of the Lesson Learned.
- Where appropriate, specific terms, methods, or processes referenced should be defined or explained.
- Any referenced documents should either be attached or have a link provided.
- Any recommendations identified should be actionable.

**The steps for processing lessons learned are as follows:**

- Registered entity and applicable Regional Entity will work together to prepare LLs using the LL template. The LL template can be found on the NERC EA website located at <http://www.nerc.com/pa/rrm/ea/Pages/EA-Program.aspx>.
- The registered entity and applicable Regional Entity will review the LLs and remove all indication of the entity involved in the event, CEII information and any other event details that are confidential.
- The Regional Entity will then submit the LL document to NERC.
- NERC staff will review LLs.
- NERC staff will prioritize LLs and identify common themes.
- NERC staff will consolidate common LLs into a single “Lessons Learned “document.
- NERC staff will distribute draft LLs to selected technical groups (Event Analysis Subcommittee (EAS) or other groups as appropriate) for review and comment.
- NERC and the Regional Entity will make revisions based on the technical group’s input.
- The Regional Entity will send LLs to the applicable registered entity for review, if needed, based on any major changes made.
- NERC will publish LLs on the NERC website and send an announcement to industry.

Once the LL document is published on the NERC website it will include a “survey Link” so the readers can provide feedback on the LL document which will help us improve the process.

Regional Entity staff are the critical link between the registered entity and NERC staff in this process. Regional Entity staff provide the means of facilitation and feedback between the entity and NERC throughout the process. Regional Entity staff has ownership of the potential LLs emanating from their Region and shepherd those LLs through the process.

For more information about the NERC Lessons Learned or the Event Analysis process, please contact NERC at: [nerc.lessonslearned@nerc.net](mailto:nerc.lessonslearned@nerc.net)

# Revision History

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Rev.	Date	Reviewers	Revision Description
0	March 11, 2013		Initial draft by Mark Vastano and Jule Tate
1	April 10, 2014	NERC EA staff	Revised document

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