EMERGENCY MANAGEMENT ROUNDUP

EXPECT THE UNEXPECTED

DOE METEOROLOGICAL COORDINATING COUNCIL (DMCC)

METEOROLOGICAL PROGRAM & CONSEQUENCE ASSESSMENT SELF-ASSESSMENT GUIDE

EMERGENCY MANAGEMENT ISSUES

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Background & Need

- DMCC has performed 11 assist visits since 1996 at most DOE/NNSA sites
- Assist visits have lead to observations/ recommendations that improved the program
- Resources not always available to fund assist visits even though value is recognized
- DMCC determined self-assessment guide to be of value to DOE/NNSA community to facilitate self-assessments

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Structure of the Guide

- Assist Visit Guide designed around structure of previous assessments
- Provides templates for pre-assessment, assessment, & post assessment activities
- Instructions are provided for using contained templates

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- DMCC Working Group Oversees Project
  - Jim Fairobent, NA-41 Sponsor
  - Walt Schalk, DMCC Chairman, NTS
  - Cliff Glantz, SCAPA Chairman
  - Joel Siegel, WIPP
  - Kirk Clawson, INL
  - Tom Bellinger, Y-12
  - Gina Deola, SNL
  - Scot Johnson, LANL

Pre-Assessment Activities

- Sample Plan of Action
- Sample Assist Visit Schedule
- Site Line Organization Notification Process
- Assessment Performance Criteria
- Performance Criteria Based on
  - ANSI/ANS-3.11 (2005)
  - DOE/EH-0173T Chapter 4
  - DOE G 151.1-1 (Consequence Assessment)
  - DOE O 151.1C

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Pre-Assessment Activities

- Assessment Performance Criteria Organized into Program Areas:
  - Meteorological Monitoring System
  - Siting of Instruments
  - Data Acquisition
  - Data Management
  - System Performance
  - Atmospheric Transport and Dispersion Modeling (Consequence Assessment)

Pre-Assessment Activity Example

METEOROLOGICAL MONITORING SYSTEM

Performance Criterion #1-1

The meteorological monitoring system design shall be based on the needs and objectives of the facility and the guiding principles for making accurate and valid meteorological measurements. A basic meteorological monitoring program shall consist of measurements of wind speed, wind direction, air temperature (including ambient and the difference between two vertical levels on a tower), precipitation, and any combination of additional measurements necessary to determine stability class.

Source:

ANSI/ANS-3.11 (2005), “American National Standard for Determining Meteorological Information at Nuclear Facilities”, Section 3.0.

DOE/EH-0173T, Chapter 4.1, Revised 2004

Assessment Activities

- Lines of Inquiry (LOI) Provided to Evaluate Each Performance Criterion
- Templates for Conducting Interviews with Meteorological Program Custodians and Customers
- Guidance Provided on Roll-Up of Information into Observations & Recommendations

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Assessment Activities

EXAMPLE LOI

METEOROLOGICAL MONITORING SYSTEM

PERFORMANCE CRITERION #1-1

(System Custodian)

Performance Criterion #1-1

Basis: ANSI/ANS-3.11 (2005), Section 3.0

The meteorological monitoring system design shall be based on the needs and objectives of the facility and the guiding principles for making accurate and valid meteorological measurements. A basic meteorological monitoring program shall consist of measurements of wind speed, wind direction, air temperature (i.e., ambient and the difference between two vertical levels on a tower), precipitation, and any combination of additional measurements necessary to determine stability class.

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Assessment Activities

Lines of Inquiry

Question 1: Describe the meteorological monitoring system in terms of the number of towers, locations, instrumentation on each tower and monitoring levels.

Response:

Question 2: What measurements and typing technique are used to determine stability class?

Response:

Question 3: When were the towers and instrumentation installed and what manufacturer and models of instrumentation are used?

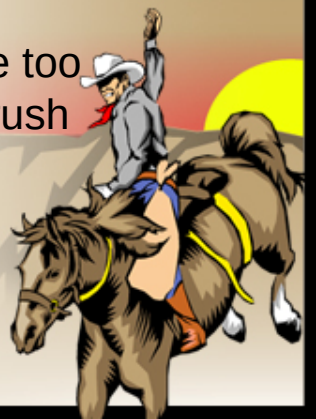
Response:

Assessment Activities

Example Recommendations & Observations

OBSERVATION #3: The meteorological tower(s) were visited and it was noted that each was appropriately sited to avoid wind and temperature field interference from nearby obstacles (i.e., buildings, trees). However, recent tree growth may be affecting the measurements. In addition, brush growth around the tower and instruments is somewhat excessive.

RECOMMENDATION #3: During the next surveillance, determine whether the trees in a full 360-degree azimuth of the towers exceed the ANSI/ANS-3.11 recommended 10:1 ratio. If it is determined that some of these trees may be too tall, consider cutting the uppermost branches. In addition, periodically cut brush growth before it affects the measurements.



Post-Assessment Activities

- Checklists Provided to Track Recommendations & Observations
- Checklists Organized by Performance Objective Basis Document
- Checklists Assist in Determining Follow-up Assist Visits & Key Program Elements to Track

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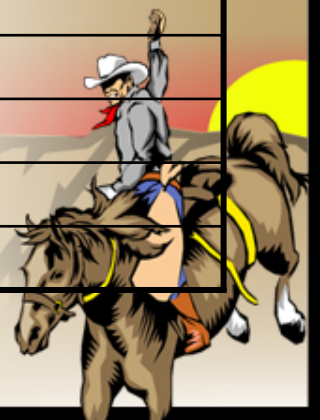
Post-Assessment Activities

ANSI/ANS-3.11 Objective	Meets Objective	Partially Meets Objective	Does Not Meet Objective	Related Observation(s)
1-1				
1-2				
1-3				
1-4				
2-1				
2-2				
2-3				
3-1				
3-2				
3-3				
3-4				
3-5				



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Post-Assessment Activities

ANSI/ANS-3.11 Objective	Meets Objective	Partially Meets Objective	Does Not Meet Objective	Related Observation(s)
4-1				
4-2				
4-3				
4-4				
4-5				
4-6				
4-7				
5-1				
5-2				
5-3				
5-4				

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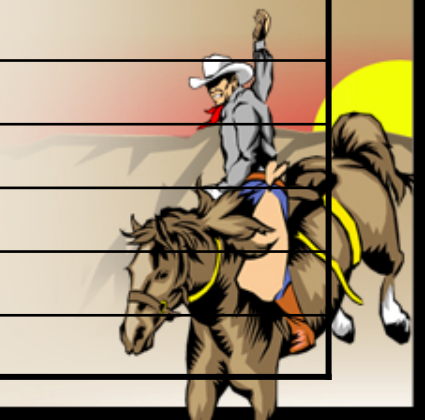
Post-Assessment Activities

DOE G 151.1-1 Objective	Meets Objective	Partially Meets Objective	Does Not Meet Objective	Related Observation(s)
6-1				
6-2				
6-3				
6-4				
6-5				
6-6				
6-7				
6-8				
6-9				
6-10				
6-11				
6-12				
6-13				
6-14				



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Post-Assessment Activities

DOE O 151.1C Objective	Meets Objective	Partially Meets Objective	Does Not Meet Objective	Related Observation(s)
6-15				
6-16				
6-17				
6-18				
6-19				
6-20				
6-21				
6-22				

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Project Status

- First Draft Sent to DMCC Working Group – April 25
- DMCC Working Group Comments – May 11
- Second Draft to ORISE – May 18
- NA-41 Review Comments – June 15
- Final Draft to ORISE – June 29
- ORISE Publishes as EMI SIG Document – July 13