

## Appendix N - Changes to the GADS Data Reporting Instructions for 2017.

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### Section III – Event Reporting

Page III-5

Mothball text updated:

Previous text:

MB is defined by IEEE 762 and GADS as “the state in which a unit is unavailable for service but can be brought back into service after some repairs with appropriate amount of notification, typically weeks or months.” GADS added “after some repairs” and defines the phrase “after some repairs” to mean that some action may be needed to prepare the unit for service because it had been sitting idle for a period of time and some equipment parts have deteriorated or need replacing before the unit can be operated. The unit may have also experienced a series of mechanical problems for which management may wish to wait for a period of time to determine if the unit should be repaired or retired. A unit that is not operable or is not capable of operation at a moment’s notice must be on a forced, maintenance or planned outage and remain on that outage for at least 60 days before it is moved to the MB state. If repairs are being made on the unit in order to restore it to operating status before the 60-day period expires, then the outage must remain a forced, maintenance or planned outage and not MB. If unit repairs for restoring the unit to operation are made after the 60-day period, then the first 60 days must be a forced, maintenance or planned outage and the time after the 60-days including the repair time on the unit up to operation shall be the MB event. Use Cause Code “9991” for these events.

Updated text:

MB is defined by IEEE 762 and GADS as “the state in which a unit is unavailable for service but can be brought back into service after some repairs with appropriate amount of notification, typically weeks or months.” GADS added “after some repairs” and defines the phrase “after some repairs” to mean that some action may be needed because the unit had been idle for a period of time and some equipment, systems or parts may have deteriorated and should be replaced or repaired prior to the units return to service. The unit may have also experienced a series of mechanical problems, prior to the MB event, for which management may wish to wait for a period of time to determine if the unit should be returned to service or retired. Granted IEEE 762 states that the unit must be capable of operation prior to being placed in the deactivated state; however, in actual practice management may want to delay a decision to fix the generator and ‘suspend’ it in a deactivated state until a decision to repair or retire is rendered. If this option is chosen the unit must enter the MB event no earlier than 60 days after the preceding outage event (In other words the unit must incur a forced outage of a minimum 60 days prior to the start of an MB event if the unit is inoperable). If the choice is to retire the generator after a decision is made, then the generator can be immediately retired coincident with the end of the MB event; If the decision is to repair, all repairs to make the unit operable must be completed under an outage of same type that preceded the MB event (in other words, if the generator entered the MB event on the heels of a forced outage, it must return to a forced outage for repairs to make the generator operable). If repairs

are being made on the unit in order to restore it to operating status once the MB event has started, the MB event must end prior to the commencement of those repairs and the appropriate outage type started until those repairs have been completed and the outage ended. Also, if there are long lead-time item(s) that are ordered (such as a GSU, a generator rotor or the like) the MB event should end when the initial order has been placed, since a decision at that time has been rendered to repair the generating unit. Again, once a decision is rendered to repair the unit, whether or not orders are placed and/or work is started, the mothball event must end and the appropriate outage type started. Repair work cannot be conducted on a unit in the mothball state. Use Cause Code "9991" for MB events.

Page III-6

Reference to testing updated from page III-13 to page III-11.

From:

### **1. Outages**

An outage exists whenever a unit is not synchronized to the grid system and not in a reserve shutdown state. The general outage event classification is divided into seven distinct event types. Special instructions for reporting testing during and following outages can be found on Page III-13.

To:

### **1. Outages**

An outage exists whenever a unit is not synchronized to the grid system and not in a reserve shutdown state. The general outage event classification is divided into seven distinct event types. Special instructions for reporting testing during and following outages can be found on Page III-11.

Page III-13

Reference to Notes on Derates updated from page III-18 to page III-14.

From:

Do not report deratings caused by ambient-related conditions or system dispatch requirements (see notes on reporting deratings, Page III-18).

To:

Do not report deratings caused by ambient-related conditions or system dispatch requirements (see notes on reporting deratings, Page III-14).

Page III-14

Reference to non-curtailing events updated from page III-19 to page III-18.

From:

Although load following is not reported to GADS, any maintenance, testing, etc. done during the load following period should be reported as an event. Under certain conditions, this work can be reported as a non-curtailling event (NC). See Page III-19 for details.

To:

Although load following is not reported to GADS, any maintenance, testing, etc. done during the load following period should be reported as an event. Under certain conditions, this work can be reported as a non-curtailling event (NC). See Page III-18 for details.

Page III-21

Reference to notes on deratings changed from page III-13 to Page III-14.

From:

See *Notes on Reporting Deratings*, Pages III-13 to III-17, for more information concerning the reporting of deratings.

To:

See *Notes on Reporting Deratings*, Pages III-14 to III-17, for more information concerning the reporting of deratings.

## Section IV – Performance

Page IV-6:

Added text to Unit Load Characteristics.

Generally, these are numbered from least starts to most starts.

### **Typical Unit Loading Characteristics** (Record 01, column 58) - Voluntary

Enter the code from the list below that best describes how the unit was operated or loaded during the month being reported.

Page IV-9

Update reference to computing hours from event reports.

From:

**Planned Outage Hours** (Record 02, columns 41-45) - Required

Enter the sum of all hours the unit was off-line due to planned outages (PO) as detailed on the event reports completed for this unit. The technique used to compute hours from the event reports is described on page IV-12.

To:

**Planned Outage Hours** (Record 02, columns 41-45) - Required

Enter the sum of all hours the unit was off-line due to planned outages (PO) as detailed on the event reports completed for this unit. The technique used to compute hours from the event reports is described below.

From:

**Maintenance Outage Hours** (Record 02, columns 51-55) - Required

Enter the sum of all hours the unit was off-line due to maintenance outages (mo) as detailed on the event reports completed for this unit. The technique used to compute hours from the event reports is described on Page IV-12.

To:

**Maintenance Outage Hours** (Record 02, columns 51-55) - Required

Enter the sum of all hours the unit was off-line due to maintenance outages (mo) as detailed on the event reports completed for this unit. The technique used to compute hours from the event reports is described below.

From:

**Extensions of Scheduled Outages** (Record 02, columns 56-60) - Required

Enter the sum of all hours the unit was off-line due to extensions of scheduled (maintenance and planned) outages (ME and PE) as detailed on the event reports completed for this unit. The technique used to compute hours from the event reports is described on Page IV-9.

To:

**Extensions of Scheduled Outages** (Record 02, columns 56-60) - Required

Enter the sum of all hours the unit was off-line due to extensions of scheduled (maintenance and planned) outages (ME and PE) as detailed on the event reports completed for this unit. The technique used to compute hours from the event reports is described below.

**Typical Unit Loading Characteristics** (Record 01, column 58) - Voluntary

Enter the code from the list below that best describes how the unit was operated or loaded during the month being reported. Generally, these are numbered from least starts to most starts.

## Appendix A – Change in Unit Status Report From

*Introductory text changed from:*

Complete the following *Change in Unit Status Report Form* whenever you purchase, deactivate or reactivate a unit from service. If a unit is deactivated (retired), continue to report that unit for the remainder of the calendar year using the instructions shown on Page III-6 of the *GADS Data Reporting Instructions*. If a unit is purchased, continue to report that unit for the remainder of the calendar month using the instructions shown on Page III-18 of the *GADS Data Reporting Instructions*. Submit the completed *Change in Unit Status Report Form* to [gads@nerc.net](mailto:gads@nerc.net).

*To:*

Complete the following *Change in Unit Status Report Form* whenever you purchase, deactivate or reactivate a unit from service.

If a unit is deactivated (retired), continue to report that unit for the remainder of the calendar year using the instructions shown on Section III of the *GADS Data Reporting Instructions*. Please fill out the unit information in the Unit Purchase/Retirement section, and also the Unit Deactivation information.

If a unit is purchased, continue to report that unit for the remainder of the calendar month using the instructions shown on Section III of the *GADS Data Reporting Instructions*. Submit the completed *Change in Unit Status Report Form* to [gads@nerc.net](mailto:gads@nerc.net). Please fill out both sections of the Unit Purchase/Retirement section, including original company and new company information. If you do not know who the new company is, please contact NERC or your Regional Coordinator.

If a unit changes owners at a company level, but keeps the same utility and unit information, keep reporting under the same utility and unit codes. Please fill out the NCR number information for Original Company NCR Number and New Company NCR Number.

If a unit was previously retired but has come back into service, fill out the reactivation part on page A-3.

Regional Coordinator information can be found at the NERC website.

<http://www.nerc.com/pa/RAPA/gads/Pages/default.aspx>

Plus added NCR number and extra spots for unit IDs.

**Unit Purchase/Retirement Information:**

Company NCR Number	NCR					
Original Utility Code						
Original Unit Code (s)						

**Appendix F – Performance Indexes and Equations**

**Factor 2 on page F-1:**

“Synchronous Hours” changed to “Synchronous Condensing Hours”

This makes Factor 4 make more sense.

**Formula 2 on page F-8:**

Unplanned Outage Factor changed from:

$$UOF = \frac{MOH + FOH + ME \text{ of } MO}{PH} \times 100$$

To

$$\text{UOF} = \frac{\text{MOH} + \text{FOH}}{\text{PH}} \times 100$$

Since “ME of MO” is included in MOH

Formula 29 included “x100” improperly.

29. Average Run Time – ART

$$\text{ART} = \frac{\text{SH}}{\text{Actual Unit Starts}} \times 100\%$$

Now fixed to:

29. Average Run Time – ART

$$\text{ART} = \frac{\text{SH}}{\text{Actual Unit Starts}}$$

Formula 61 included x100 improperly.

61. Average Run Time – ART

$$\text{ART} = \frac{\sum \text{SH}}{\sum (\text{Actual Unit Starts})} \times 100\%$$

Now fixed to:

61. Average Run Time – ART

$$\text{ART} = \frac{\sum \text{SH}}{\sum (\text{Actual Unit Starts})}$$

**Updated demand factor f in equation 23, 25, 55, 57, 87, and 89 to align division symbols.**

From

$$f = \left( \frac{1}{r} + \frac{1}{T} \right) / \left( \frac{1}{r} + \frac{1}{T} + \frac{1}{D} \right)$$

To:

$$f = \left( \frac{1}{r} + \frac{1}{T} \right) / \left( \frac{1}{r} + \frac{1}{T} + \frac{1}{D} \right)$$

**Updated text in formula 89 on Page F-26 to clarify.**

From:

$$\text{WEFORd} = \frac{[\sum [(FOHd + (EFDHd) \times NMC)]}{\sum [(SH + FOHd) \times NMC]} \times 100\%$$

To:

$$\text{WEFORd} = \frac{\sum [(FOHd + EFDHd) \times NMC]}{\sum [(SH + FOHd) \times NMC]} \times 100\%$$

## Appendix B5 – Hydro Cause Codes

Added:

3980	Programmable Logic Controller (PLC)
3981	PLC – data highway
3982	PLC – hardware problems (including card failure)
3983	PLC – internal and termination wiring
3984	PLC – logic problems
3985	PLC – upgrades
3989	Other PLC problems
7070	Speed Inreaser

9345 text changed to “Pumping Operation” from “Pumped Storage Operation”



## **Appendix B4 – Diesel Cause Codes**

Added:

Continued Emissions Monitoring Systems (CEMS)

8700	CEMS Certification and Recertification
8710	SO <sub>2</sub> analyzer problems
8720	NO <sub>x</sub> analyzer problems
8730	CO analyzer problems
8740	CO <sub>2</sub> analyzer problems
8750	O <sub>2</sub> analyzer problems
8760	Opacity monitor problems

## **Appendix B6 – Gas Turbine Cause Codes**

8710	SO <sub>2</sub> analyzer problems
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## **Appendix B7 – Jet Engine Cause Codes**

8710	SO <sub>2</sub> analyzer problems
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## **Appendix B8 – Combined Cycle CoGeneration Cause Codes**

Updated header/Component to 8265 and 8275 from “Miscellaneous (Pollution Control Equipment)” to “Wet Scrubbers”