



# User Guide for GADS NxL

**Document Version:** 1.2  
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## **- Reference Section -**

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# Preface

## Purpose

This user guide is divided into two sections. The first part is called the Reference section and the second is called the Task section. The Reference part provides general concepts for using the application. The Task section goes into greater detail for completing specific tasks and is used in Hands-on training. In most instances, web page screen captures have been used to illustrate the explanations.

## Assumptions

There is an assumption that the GADS submitter has a working knowledge of general GADS information. If additional GADS information is needed it is available by accessing the NERC GADS website at <http://www.nerc.com/~gads/>

## Change Summary

<b>Revision</b>	<b>Date</b>	<b>Comments</b>
1.0	September 1, 2005	Original – Peter Brunette
1.1	September 2, 2005	Layout changes
1.2	September 13, 2005	Revised after edit of Debbi Cooke

# GADS Portal NxL

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## Introduction

GADS NxL™ Portal assumes the user has a basic knowledge of the NERC GADS as detailed in the NERC GADS Data Reporting Instructions (DRI).

Two types of data are reported in GADS: event and performance.

Event data are reported in the Event Report (97) format and performance data are reported in the Performance Report (95) format. Each of these formats is described in detail in Sections III and IV of the NERC GADS DRI.

Generally, references to “GADS” refer to the definitions, terms and requirements provided in the NERC GADS DRI.

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## Web User Interface Login

The user interface (UI), shown in Figure 1 is the first screen displayed **once you have been authenticated**.

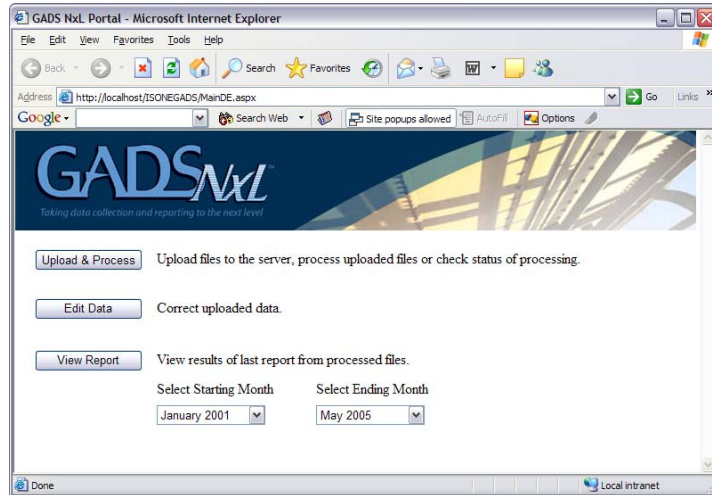


Figure 1. Opening Screen

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## Quick Start

You will access GADS NxL through the ISO New England webpage. In the lower left hand corner locate “Select Other Applications”, then click GADS Portal.

Figure 1 shows the options available to help you successfully upload your GADS data each month. Use this option to upload the 82-column standard NERC GADS ASCII file.

### Upload & Process

**Upload & Process** is the first step you will initiate each month in the upload process.

### Edit Data

If you successfully upload the performance and event GADS data files and have no errors, then you will not need to initiate the **Edit Data** option for the month.

Select the **Edit Data** option on the opening screen if you have:

1. Uploaded the GADS data files and have been notified that the data has errors,
2. Left the Portal for whatever reason, and need to correct the data manually using the Portal’s data entry forms when you return to the Portal.

You also have the option to correct the data records offline and then upload the GADS 82-column ASCII files again using the **Upload & Process** option.

### **View Report**

If you have successfully uploaded the performance and event GADS data files and have no errors, then you may not need to initiate the **View Report** option on the opening screen.

Select the **View Report** option if you want to reprint a report showing the calculated statistics for the selected period range (Starting Month and Ending Month).

The following steps assume that you have successfully created valid GADS ASCII data files in the 82-column standard NERC GADS ASCII file format as required prior to logging into the GADS NxL Portal.



# **User Guide for GADS NxL**

## **- Task Section -**

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# Preface

## Purpose

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## Uploading files

The upload file(s) may be created by any software application that can create the required 82-column ASCII format.

1. To begin uploading the 82-column ASCII file(s), on the main menu press the Upload & Process button. Once the button is selected you will see the web page shown in Figure 2.



Figure 2. Data Upload Screen

2. Press the Browse button to locate the required file on your own machine. You will select a single file to upload on the screen shown in Figure 3. Participants are allowed to upload data files in the formats defined in Appendix E of Manual 20.

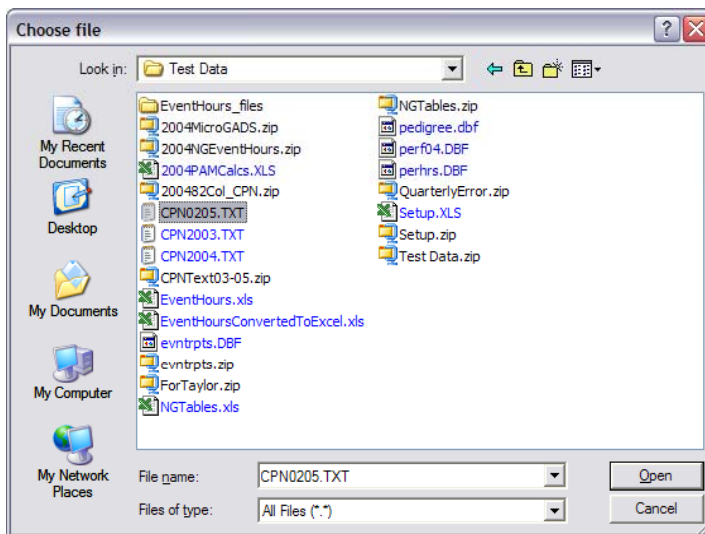


Figure 3. File Selection Dialog

As you select each file, it is displayed as shown in Figure 4.

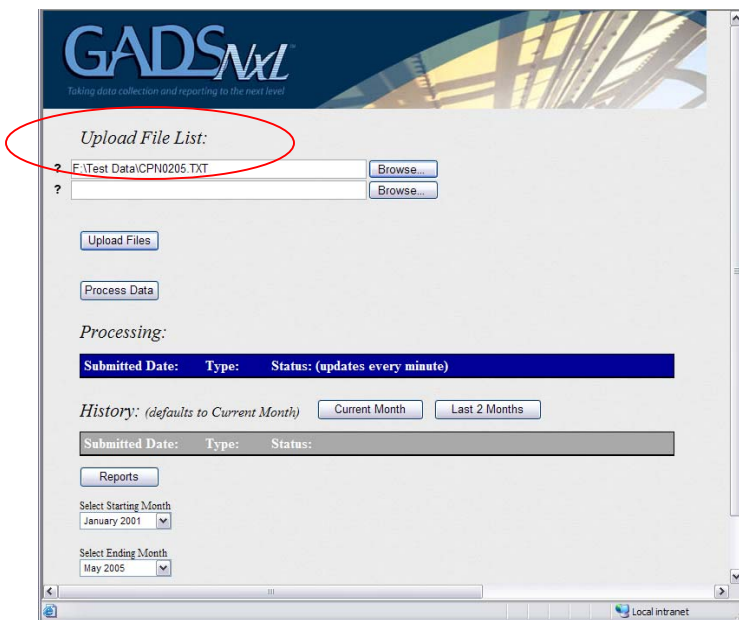


Figure 4. Data Upload Screen with Selected File

You may repeat this process up to a total of 20 files; however, each file in the set of 20 must have a unique name (i.e., you cannot have two files in the selection list with the same name).

After you have selected the files to be uploaded, press the Upload Files button.

There will be a clear message indicating the status of the upload as shown in Figure 5.

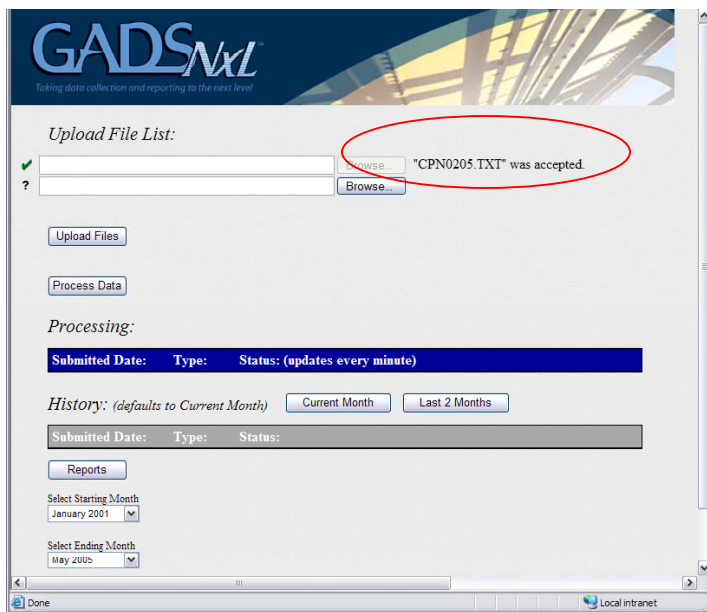


Figure 5. Screen Showing File Accepted Status

3. After you have successfully uploaded all the files, press the **Process Data** button to further validate the data, and to validate both the performance and event data for consistency (Final Validation).

As shown in Figure 6, the status of the processing is shown below the blue line. As indicated, the status is automatically updated approximately every one minute.



Figure 6. Processing Status

During the processing, the status will display the three phases that the uploaded data pass through:

1. File Check
2. Data Check
3. Analysis

These phases are displayed as the files are checked for a valid format, the data is checked for validity and consistency, the validated data is calculated, and the calculated results are stored in the database.

During these phases, the status may be listed as one of the following:

- Waiting for processing...
- Working...
- Processing completed. No errors.
- Data rejected. Click Edit button to correct data.
- No processes in queue.
- Operation aborted.
- Invalid process request.
- Invalid file format. Correct file and re-upload.

If there are errors, you will have the opportunity to view and/or correct the errors online by pressing the **Edit Data** button to the right of the status display, as shown in Figure 7. These are online corrections only and may not be reflective of the users copy of the data.

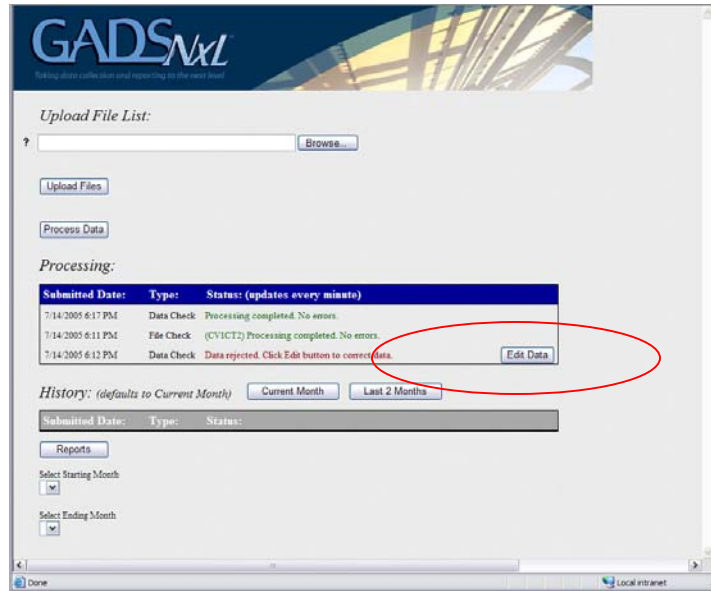


Figure 7. Error Status

If the uploading and processing results in no errors (*Processing completed. No errors.*), then you may view the calculated EFORD and FORD statistics for each unit you successfully uploaded for each month by pressing the **Reports** button. You may choose any range of months desired based on the possible range uploaded to date, as shown in Figure 8.



Figure 8. History Display

This generates a report similar to the one shown in Figure 9.

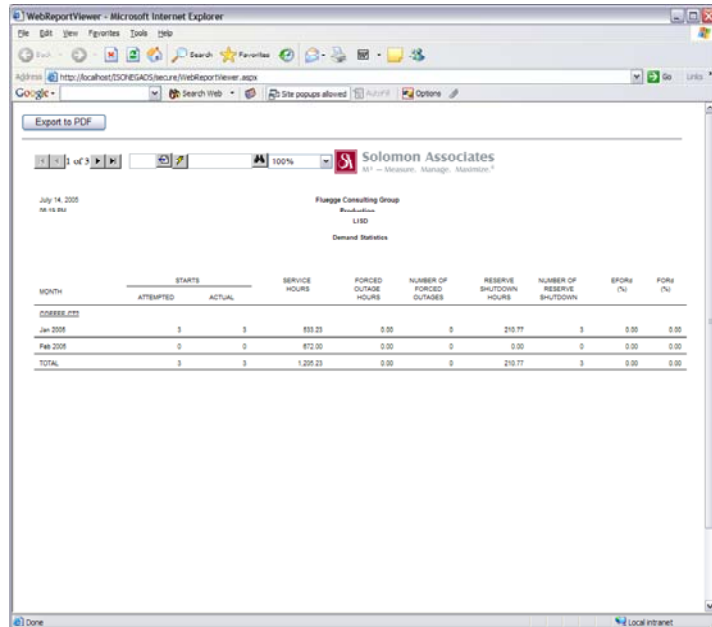


Figure 9. Demand Statistics Report

During processing, you can abort the process if needed by pressing the **Abort** button to the right of the status display, as shown in Figure 10.

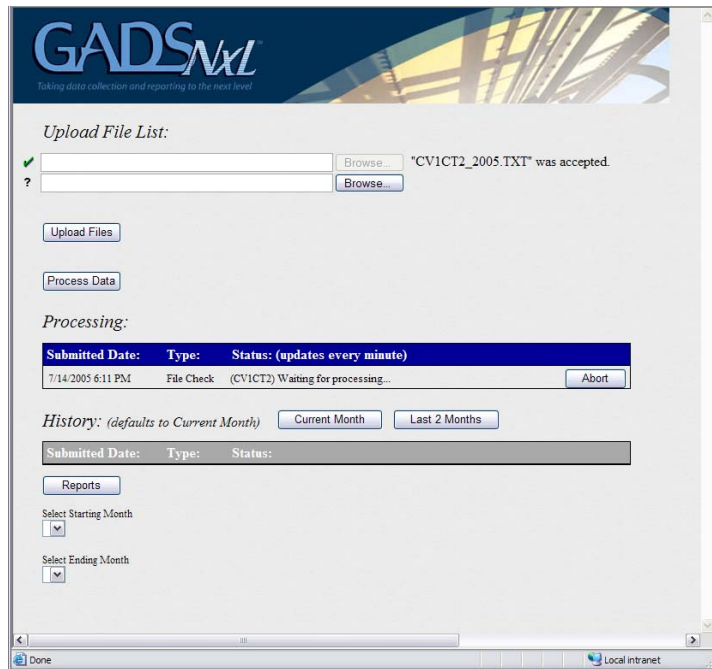


Figure 10. Abort Processing

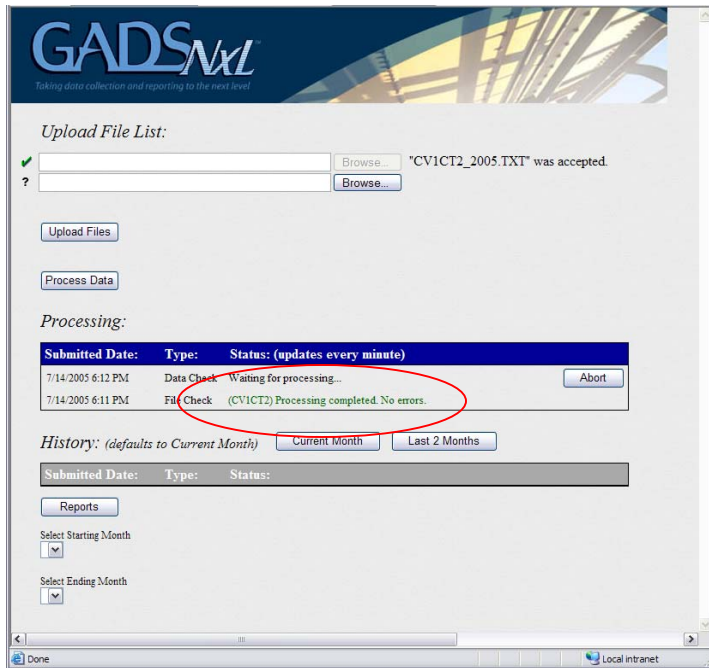


Figure 11. Results with No Errors

Figure 11 shows results with no errors. If errors are identified, you will have two ways of resolving them:

- Correct the GADS data offline and reload only the records with errors, or the entire monthly data set, whichever is easier. It is recommended that the revised data records have the revision number on the appropriate record(s) increased numerically to reflect the revision; however, this is not required. If a data record is subsequently loaded with the same or higher revision number, the later record overwrites the previously submitted record.

Correct the data using the Portal's data entry forms as detailed in the Input Data Requirements section. This performs an online correction only and may not be reflective of the user's copy of the data.

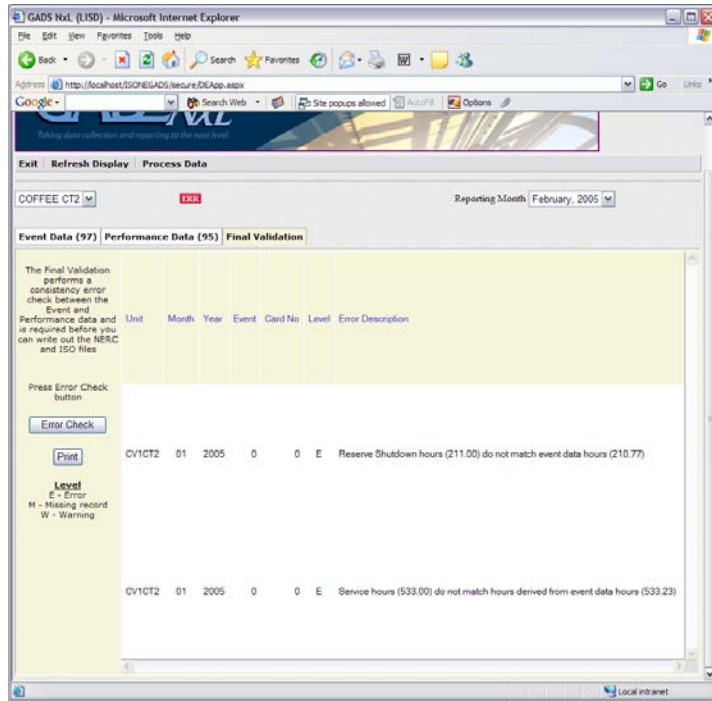


Figure 12. Example Error Detail Screen

If you have errors, press the Edit button to easily identify which performance or event record is in error, as shown in Figure 12. You can either revise the appropriate record offline and reload, or you can revise the data using the Portal's data entry forms on the event Data or performance Data tabs as shown in Figure 13. Using the Portal's data entry form commits online corrections only and may not be reflective of the users copy of the data.

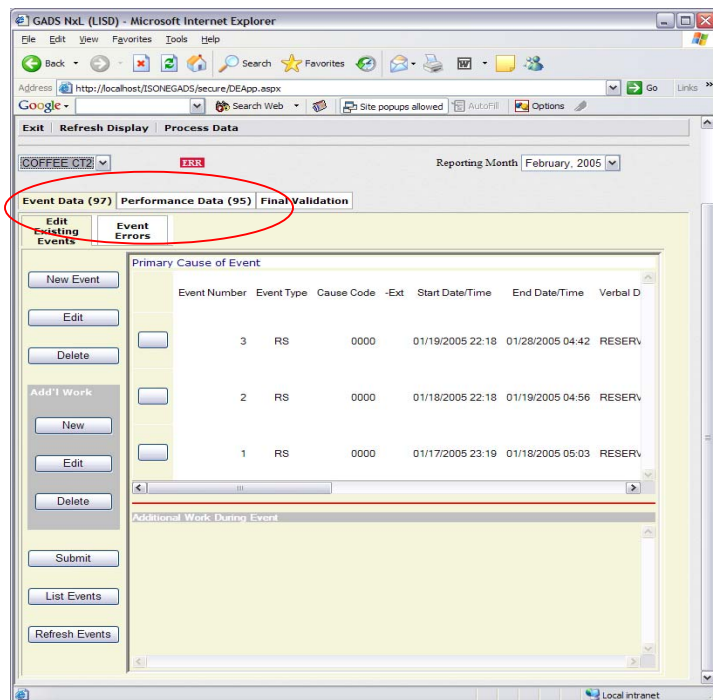


Figure 13. Example Error Correction Screen

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## Input Data Requirements

The minimum required GADS format requires the following subset of the record identified above, specifically:

- Performance 01 record
- Performance 02 record
- Event 01 record

Note that there are additional data fields on these records not required by the minimum GADS format.

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## Main Menu

The “**Main** menu” is not actually a menu, but refers here to the top two portions of the screen, as illustrated in Figure 14.

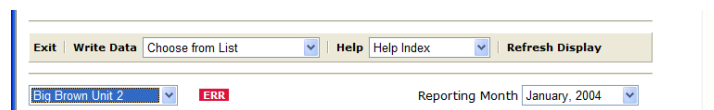


Figure 14. Menus Coffee Unit 1

Selections on the **Main** menu are made by using your mouse pointer and “left-clicking” to perform the desired action.

An online Help file that can be accessed at any time by clicking Help on the **Main** menu.

### Selecting or Changing Units

The unit selection list box on the left side of the **Main** menu displays the generating units that you are authorized to access.

When you first open the program, the software retrieves the performance and event data for the first unit displayed in the unit selection list box for the entire calendar year based on the month displayed in the Reporting Month list box. For example, if the first unit displayed in the unit selection list box is Coffee Unit 1 and the Reporting Month is November 2005, then the software has retrieved from the database all event and performance records for Coffee Unit 1 for 2005.

As you input or edit the 2005 data for Coffee Unit 1, you must click **Submit** on either the **Performance Data** or **Event Data** tab to ensure that the data is saved back to the master database tables.

#### *Very Important Note*

If you change the year for the current unit OR change to another unit without saving your work, all new data and any changes made since the last time you clicked Submit will be lost.

This procedure was developed so that you control which data gets saved back to the master database, not the software. For example, you mistakenly entered the February data for the wrong unit; realizing your mistake, you simply select the correct unit and input the data there. If the software automatically saved the data back to the master database when you changed units, the data for this unit would be corrupted with incorrect data.

When entering new Performance data for the current month, be sure to click Submit at least once before changing the selection to a prior month, even in the same year otherwise, the Performance data for the month will be lost. Saving the data the first

time “locks in” the month’s data and subsequently selecting a different month does not result in the loss of the data on the Data Entry form. Note: Using the Portal’s data entry form commits online corrections only and may not be reflective of the users copy of the data.

The Event data is not affected by changes in Reporting Month unless the change results in a change to a different year.

In addition, since the Web UI requires session timeouts for security reasons, you need to interact with the application on the server by clicking Submit at least once every 30 minutes (the default setting of the timeout value is 30 minutes) OR all new data and any changes made to both Event and Performance data since the last time you clicked Submit will be lost. Clicking Submit resets the timer.

It does no harm to click **Submit**; so click it often

## Selecting or Changing Reporting Month

The Reporting Month list box on the right side of the **Main** menu, displays the reporting periods that you are authorized to access or for which GADS data is available. Generally, this is determined by the Performance data.

When you first open the program, the software retrieves the performance and event data for the first unit displayed in the unit selection list box for the entire calendar year based on the month displayed in the Reporting Month list box. For example, if the first unit displayed in the unit selection list box is Coffee Unit 1 and the Reporting Month is November 2005, then the software has retrieved from the database all event and performance records for Coffee Unit 1 for 2005.

As you input or edit the 2005 data for Coffee Unit 1, you must click **Submit** on either the **Performance Data** or **Event Data** tab to ensure that the data is saved back to the master database tables.

### *Very Important Note*

*If you change the year for the current unit OR change to another unit without saving your work, all new data and any changes made since the last time you clicked **Submit** will be lost. It does no harm to click **Submit**; so click it often.*

This procedure was developed so that you control what gets saved back to the master database, not the software. For example, you mistakenly entered or edited the Coffee Unit 1 data for the wrong year; realizing your mistake, simply select the correct month/year and input the data there. If the software automatically saved the data back to the master database when you changed periods, the data for this unit would be corrupted with incorrect data.

When entering new Performance data for the current month, be sure to click Submit at least once before changing the selection to a prior month, even in the same year, otherwise, the Performance data for the month will be lost. Saving the data the first time “locks in” the month’s data and subsequently selecting a different month does not result in the loss of the data on the Data Entry form. Note: Using the Portal’s data entry form commits online corrections only and may not be reflective of the users copy of the data.

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data and any changes made to both Event and Performance data since the last time you clicked Submit will be lost.

It does no harm to click Submit; so click it often.

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## Status Indicator

The data status indicator is displayed just to the right of the Unit Selection list box, and has three display values:

Display	Meaning
MOD	Data has been revised (modified), but Error Check has not been run.
ERR	Error Check has been run; there are errors that must be corrected.
OK	Error Check has been run; no errors found.

Data records with errors cannot be saved back to the master database tables.

---

## Event Data (97)

Four general Event Data classifications are reported to GADS:

- Outages
- Deratings
- Reserve shutdowns
- Noncurtailing events

Three distinct data make up the Event Report (97):

- Event Magnitude
- Primary Cause of Event
- Additional Cause of Event or Components Worked During Event

The layout of **the Event Data (97)** tab, shown in Figure 15, displays a summary of all of the events that have occurred on the unit shown in the unit selection list box for the year shown in the Reporting Month list box. The event displays are not in any way tied to the “month” shown in the Reporting Month list box, only the year.

## Tab: Edit Existing Events

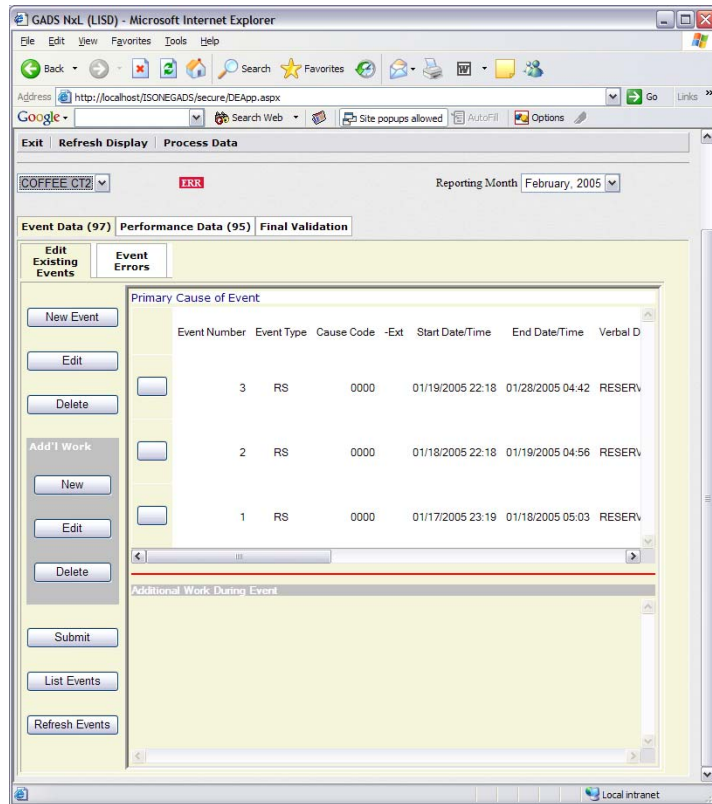


Figure 15. Edit Existing Events

The layout includes buttons that allow you to input new event records, edit existing event records and delete existing event records.

In addition, you can perform the following tasks:

- Save any new or changed events back to the database server by clicking Submit
- List the event data by clicking List Events
- Refresh the displayed event data by clicking Refresh Events

The right side of display has two sections: an upper section that shows the Primary Cause of the Event and a lower section that shows the Additional Work Done During the Event.

As a reference to the NERC GADS DRI, the top section covers Event records 01–03 while the lower section displays any Event 04–99 records that have been input for each set of Event 01–03 records. In other words, every event that has been input is listed in the top section. If there was any additional work done during an event highlighted in the top section, it will be displayed in the bottom section.

Scroll bars for each section allow you to scroll both up/down and left/right to view the full data set in each section.

Each set of three buttons on the left side are functionally the same. The top set of buttons (**New Event** | **Edit** | **Delete**) is used for the Primary Cause of Event (top) section. The lower set of buttons on the blue background (**New** | **Edit** | **Delete**) is used for the Additional Work During Event (lower) section.

## Adding New Events/Editing Existing Events

To add a new Primary Cause of Event record (in the NERC GADS DRI these are also known as Sections A and B on Record 01 and Section C on Records 02 and 03), simply click **New Event** on the **Event Data (97)** tab.

To edit an existing Primary Cause of Event, highlight the event record in the Primary Cause section and click **Edit**.

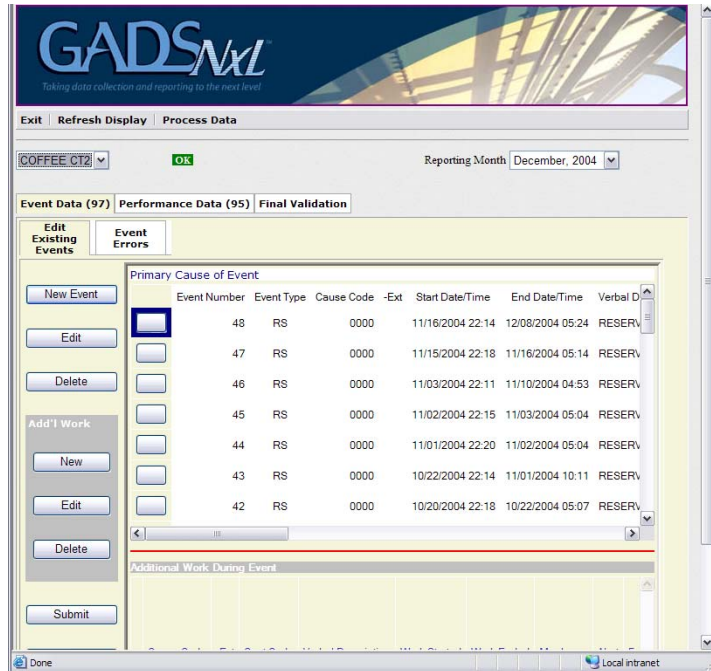


Figure 16. Selecting an Event to Edit

In either case, the form shown in Figure 16 will be displayed. For new events, the fields are generally blank; for existing events, the fields are populated with the current data.

The cursor will automatically skip over all disabled fields as you move from field to field.

As you enter data in each field and then move to the next, as shown in Figure 17, the program “validates” the data you just entered. However, in some cases, these validations are not done until you click **Submit** or **Save**.

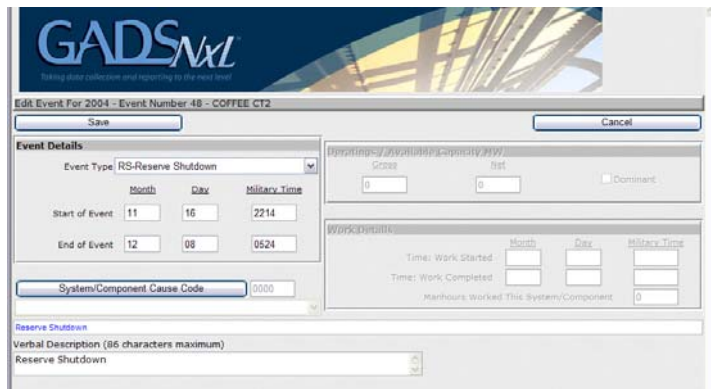


Figure 17. Adding New Events/Editing Existing Events

In either case, you will be given clear indications of any errors that must be corrected before you can save the data back to the working copy of the database that you have loaded.

The screen includes a **Save** button and a **Cancel** button. **Save** records the data on the form in the database and returns you to the **Main** menu window. **Cancel** ends the current operation and returns you to the **Main** menu window.

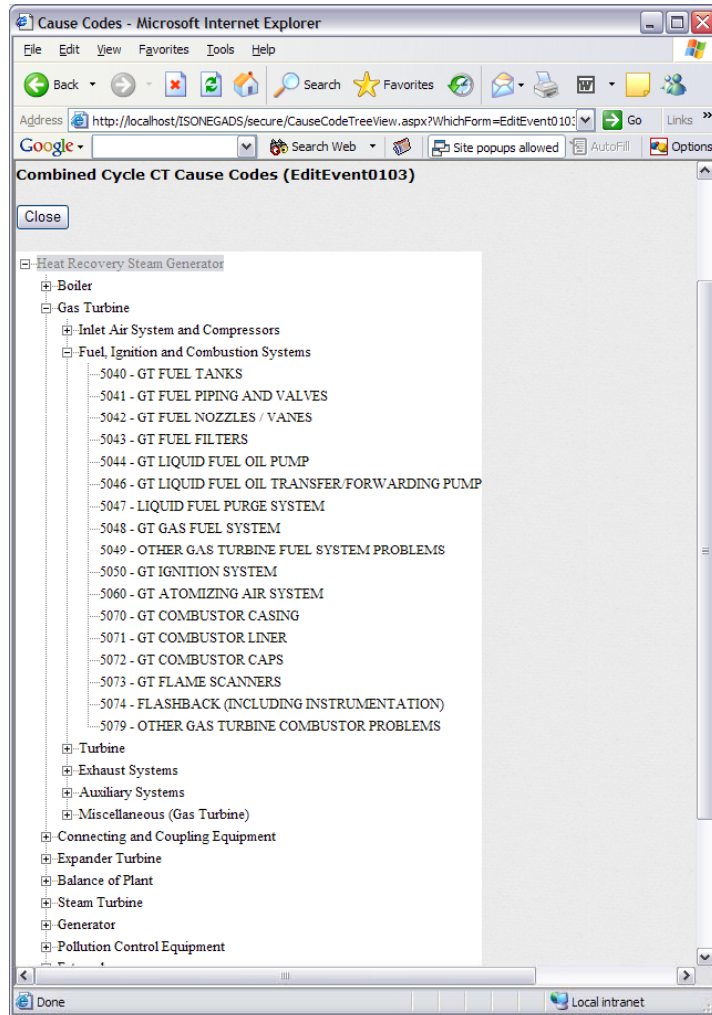


Figure 18. Cause Code Tree View

The **System/Component Cause Code** button displays a list of valid cause codes for the selected unit, as shown in Figure 18. Simply open the “tree view” branches until you get to the cause code that best fits the root cause of the event, and then click on it. The software copies the cause code and its verbal description to the event input form, as shown in Figure 19.

If you already know the 4-digit cause code, you may simply enter it into the text box.

Figure 19. Cause Code Field Loaded from Tree View Selection

If you select a Reserve Shutdown (RS) event type, the software will automatically fill in the 0000 cause code for you and disable the Cause Code text box, since 0000 is the only valid cause code for an RS event.

Finally, the 86-character verbal description describing the root cause of the event must be completed. Enter a brief description of the cause, as shown in Figure 20.

Figure 20. Verbal Description

The 4-digit cause code is validated against the master list of approved cause codes and validated against the unit type (e.g., fossil steam units cannot use cause codes related to nuclear fuel problems).

If there are no errors on the Primary Cause of Event form, you can click one of the **Save** buttons to save the data and continue with data processing.

## Additional Work

You can edit submitted Additional Work event records by highlighting the record in the **Additional Work During Event** (bottom) section of the form on the **Event Data (97)** tab, as shown in Figure 21, and clicking **Edit** in the blue Add'l Work area.

The screenshot shows a web-based form titled "Additional Work For 2004 - Event Number 4 - BIG BEAR ST1". At the top, there are three buttons: "New Add'l Work", "Save", and "Cancel". Below these is a "Current Record No. 4 / 5" indicator. The form is divided into several sections: "Event" with fields for "PO", "From:" (01/01/2004 00:00), and "To:" (<open>); "Contribution Code" with a dropdown menu showing "3 - Work done during the event"; "System/Component Cause Code" with a dropdown menu showing "9131"; a "Verbal Description (86 characters maximum)" field containing "Ran out of fuel"; and "Expanded Data Reporting" with fields for "Failure Mechanism", "Trip Mechanism" (Automatic), "Cumulative Fired Hours", and "Cumulative Engine Starts". There are also buttons for "SVD", "Expanded Desc", and "Problem Alert".

Figure 21. Additional Work

## Additional Features

After Primary Cause of Event records and Additional Work During Event records have been created, the **Event Data (97)** tab form has several options and items of interest.

First, click the **Submit** button at any time to save the data. This is especially important when using a Web UI, since it has a “timeout” feature that requires that you save to the database server within the timeout window (default is 30 minutes). Saving the data back to the database server resets the timer.

## List Events

On the data entry forms you can list the event records for the currently selected unit and year by pressing the List Events button. This will display the report shown in Figure 22.

EVENT NUMBER	EVENT TYPE	EVENT DATE/TIME		AVAILABLE CAPACITY		CARD NO.	EVENT CENTER CODE	WORK TIMES		MANHOURS WORKED
		START	END	GROSS	NET			START	END	
1	RS	1/1/2004 08:00:00	1/5/2004 04:34:00	0	0					
PRIMARY CAUSE OF EVENT 1 CAUSE CODE 0000 - RESERVE SHUTDOWN VERBAL DESC - RESERVE SHUTDOWN										
3	PO	2/8/2004 22:58:00	2/16/2004 04:08:00	0	0					
PRIMARY CAUSE OF EVENT 3 CAUSE CODE 4040 - NO FUEL ON BEARING VERBAL DESC - SITE OUTAGE FOR WARRANTY INSPECTION AND REPAIR										
4	RS	2/18/2004 04:08:00	2/17/2004 04:02:00	0	0					
PRIMARY CAUSE OF EVENT 4 CAUSE CODE 0000 - RESERVE SHUTDOWN VERBAL DESC - RESERVE SHUTDOWN										
5	RS	2/17/2004 22:30:00	2/20/2004 04:30:00	0	0					
PRIMARY CAUSE OF EVENT 5 CAUSE CODE 0000 - RESERVE SHUTDOWN VERBAL DESC - RESERVE SHUTDOWN										
8	RS	2/20/2004 22:46:00	2/20/2004 18:58:00	0	0					

Figure 22. Sample Event Listing

## Display Features

As a warning, all open-ended events (both full outages and deratings) with the End of Event date/time left blank are displayed in the Primary Cause of Event section with a green background, as shown in Figure 23. Events records that have been deleted after being saved to the database server are shown in yellow.

Event Number	Event Type	Cause Code -Ext	Start Date/Time	End Date/Time	Verbal Description
3	D1	9910	01/27/2004 00:19	01/27/2004 01:06	DERATING
2	D1	5079	01/24/2004 16:03	01/24/2004 16:38	DERATING
1	D4	5272	01/23/2004 11:00	01/24/2004 16:03	DERATING
4	PO	6010	01/01/2004 00:00		Repair 5

Cause Code -Ext	Cont Code	Verbal Description	Work Started	Work Ended	Manhours	Alt
9130	3	Ran out of fuel				Fa

Figure 23. Additional Work Main Window

These color codes are visual clues to your event data status.

Clicking **List Events** provides an event data list that may be viewed online or printed.

## Tab: Event Errors

The **Event Errors** tab displays all warnings and errors existing on the units you are authorized to access, as shown in Figure 24. These can be printed to allow offline resolution of the indicated warning or error.

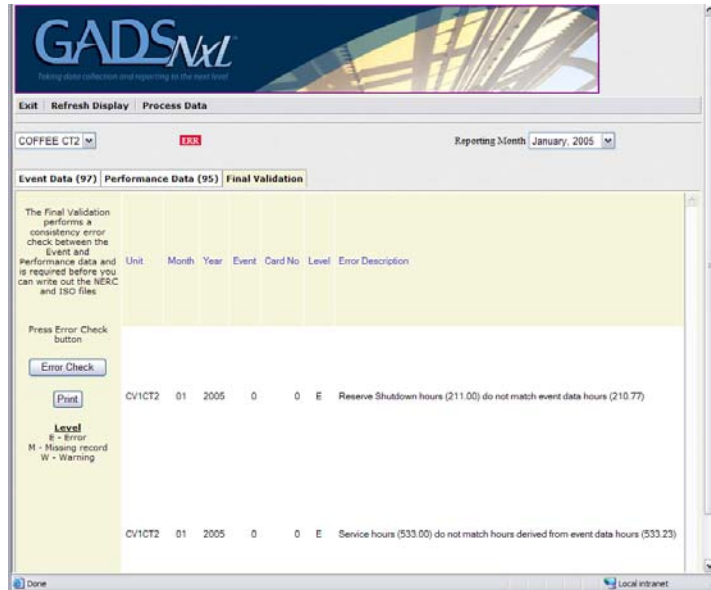


Figure 24. Event Errors

It is highly recommended that you review the list of errors and warnings to ensure that all error and warning messages are expected. Warnings do not necessarily need to be corrected—they are not fatal errors, but still may lead to unexpected problems.

For example, a derating that started in January and was inadvertently left “open” will only generate a warning since this is not necessarily an error, and may be correct; however, the calculated EFOR (Equivalent Forced Outage Rate) and EAF (Equivalent Availability Factor) values calculated with this data in GADS NxL will not be correct if the derating should have been closed back in January.

Therefore, it is important to review the list of errors and warnings.

---

## Performance Data (95)

Performance data provide information, in a summarized format, pertaining to overall unit operation during a particular month in a given year.

### Tab: Operating Data

The data provided on the **Operating Data** tab, shown in Figure 25, are used to calculate performance statistics.

The screenshot shows the GADS\_NXL interface for Performance Data (95). The 'Operating Data' tab is selected and highlighted with a red circle. The form contains the following data:

Gross Maximum Capacity (GMC)	Gross Dependable Capacity (GDC)	Gross Actual Generation (MWh)	Number of Attempted Unit Starts	Number of Actual Unit Starts
168	151	86471	1	>= 1

Net Maximum Capacity (NMC)	Net Dependable Capacity (NDC)	Net Actual Generation (MWh)
165	148	85084

Typical Unit Loading Characteristics: 4 - Daily startup with daily load-following and taken off-line nightly

Verbal Description: (25 characters max)

Auto Fill uses Available Event data to fill in Starts fields. You must enter ALL events including RS.

Figure 25. Operating Data

### Auto Fill

Auto Fill uses available event data to fill in the Attempted and Actual Unit Starts fields. You must, however, fill in all event data, including RS events.

The starts entered into these fields should be derived independently, based on plant or control room logs. The program uses these start data as a cross-check with the event data, to determine if all full outage events have been entered correctly. While the Auto Fill feature is available for your use, please use with caution, and understand that using Auto Fill impacts data validation.

## Tab: Unit Time Info

Figure 26 displays the Unit Time Info tab. The unit's hours must be completed as specified by the NERC GADS DRI.

Figure 26. Unit Time Info

### Auto Fill

Auto Fill uses available Event data to fill in the various hours fields, except the Pumping and Synchronous Condensing Hours fields, which cannot be filled in automatically by the program since there is no event data that can be used to determine the hours. However, you must fill in all event data, including RS events.

The hours entered into these fields should be derived independently, based on plant or control room logs. The program uses these data as a cross-check with the event data to determine if event start and ending event date/times have been entered correctly. While the Auto Fill feature is available for your use, please use with caution, and understand that using Auto Fill impacts data validation.

### Errors

Errors are immediately identified and displayed in a clearly identified manner. In some cases holding your mouse pointer over the red indicator will cause a tool tip to be displayed, detailing the error message as shown in Figure 27.

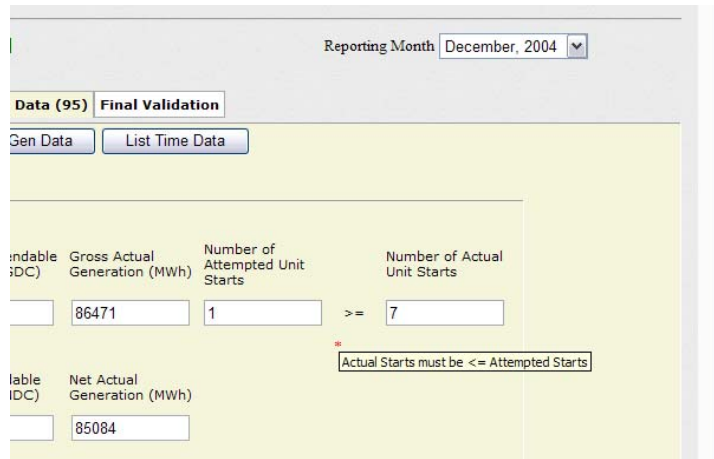


Figure 27. Tool Tip Detailing Error

### List Performance Data

On the Performance Data tab are two buttons, List Gen Data and List Time Data. When selected, they produce the reports shown in Figure 28 and Figure 29.

These reports may also be exported to PDF format if desired.

MONTH	GENERATION (MWh)		STARTS		DEPENDABLE CAPACITY		HEAT RATE (Btu/kWh)		TYPICAL UNIT LOADING CHARACTERISTICS
	GROSS	NET	ATT	ACT	GROSS	NET	GROSS	NET	
2004									
01	100,862	80,045	1	1	131	140			1 - Base loaded with minor load following at night and on weekends
02	94,117	73,388	3	3	131	140			2 - Weekly varying with daily load following and reduced load on night
03	0	0	0	0	131	140	0		3 - Weekly varying with daily load following and reduced load on night
04	81,890	62,859	1	1	131	140			4 - Daily varying with daily load following and base off-line on night
05	23,927	20,290	3	3	131	140			5 - Weekly varying with daily load following and reduced load on night
06	61,710	43,038	3	3	131	140			6 - Weekly varying with daily load following and reduced load on night
07	42,118	40,819	10	10	131	140			7 - Daily varying with daily load following and base off-line on night
08	86,861	68,838	1	1	131	140			8 - Daily varying with daily load following and base off-line on night
09	73,470	72,060	3	3	131	140			9 - Daily varying with daily load following and base off-line on night
10	11,267	11,218	8	8	131	140			4 - Daily varying with daily load following and base off-line on night
11	38,824	38,261	0	0	131	140			4 - Daily varying with daily load following and base off-line on night
12	38,471	31,034	1	1	131	140			4 - Daily varying with daily load following and base off-line on night
2004	871,811	681,838	38	38					

Figure 28. Sample Performance Listing – List Gen Data

MONTH	SERVICE	REIMBURS	FUELING	SYNC COND	P9	FO & IF	MD	SCHEDULED	PERIOD
	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh
2004									
01	940.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	744.00
02	294.00	242.00	0.00	0.00	-211.00	0.00	0.00	0.00	605.00
03	0.00	0.00	0.00	0.00	183.00	0.00	0.00	0.00	744.00
04	424.00	160.00	0.00	0.00	102.00	0.00	0.00	0.00	718.00
05	147.00	458.00	0.00	0.00	0.00	0.00	138.00	0.00	744.00
06	48.00	474.00	0.00	0.00	0.00	0.00	0.00	0.00	726.00
07	388.00	894.00	0.00	0.00	0.00	0.00	87.00	0.00	744.00
08	704.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	744.00
09	688.00	168.00	0.00	0.00	0.00	0.00	1.00	0.00	726.00
10	118.00	824.00	0.00	0.00	0.00	0.00	0.00	0.00	740.00
11	200.00	118.00	0.00	0.00	0.00	0.00	0.00	0.00	720.00
12	770.00	170.00	0.00	0.00	0.00	0.00	0.00	0.00	744.00
2004	2,838.00	4,114.00	0.00	0.00	668.00	0.00	139.00	0.00	6,764.00

Figure 29. Sample Performance Listing – List Time Data

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## Final Validation

The Final Validation performs a consistency error check between the Event and Performance data and is required before you can create the NERC and ISO files.

Before you can write out the GADS data for submission to NERC or to the various ISOs, the data must be validated for consistency.

As you enter data on each form, it is possible to validate the data in some of the fields immediately (e.g., valid date?).

However, some data can only be validated when **Submit** is clicked on either the **Performance Data (95)** or **Event Data (97)** tab, as it depends upon consistency between two or more fields on a form (e.g., are attempted starts greater than or equal to the actual starts?).

On the **Final Validation** tab, pressing **Error Check** causes the software to validate the consistency between the event and performance data which can only be done after all of the data for the month has been entered. Included in these validation checks are:

- Starts on the Performance 01 record versus the starts determined from the event data
- Hours on the Performance 02 record versus the hours calculated from the event data
- Derating available capacities being less than the dependable capacities on the Performance 01 record

While these are not the only validations performed, they indicate the types of consistency checking that is done before the data can be finalized.



Figure 30. Final Validation

Figure 30 shows a list of errors that resulted from the final validation. Any errors that result from this error check will block the unit's data from being written out. "Warnings" do not block the data from being processed..

The fields displayed are:

- **Unit** – this is the short name for the unit
- **Month** – for performance errors, this is the month that has the error
- **Year** – this is the year in which the event or performance error occurred
- **Event** – for event errors, this is the event number
- **Card No** – for event errors, this is the card/record number that has the error
- **Level** – this is either an **E** (error) or a **W** (warning). Errors are generally “fatal” and will prevent you from reporting the data on this unit. Warnings are not fatal, but should be reviewed.
- **Error Description** – a description of the error

Using the displayed error messages, the event and performance data should be corrected as appropriate and **Error Check** clicked to ensure that all errors have been resolved. If errors still exist, repeat these steps as necessary until all errors are resolved.

It is highly recommended that you review the list of errors and warnings to ensure that all error and warning messages are expected. Warnings do not necessarily need to be corrected; they are not fatal errors, but may lead to unexpected problems.

For example, a derating that started in January and was inadvertently left “open” will only generate a warning since this is not necessarily an error; and it may be correct. However, the calculated EFOR and EAF values calculated in GADS NxL using this data will not be correct if the derating should have been closed back in January.

Therefore, it is important to review the list of errors and warnings each time the Error Check is run.

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## Exiting the Program

Be sure to **Submit** your current work before exiting the program or shutting down your machine; otherwise, you will lose all work that has been done since the last **Submit**.

To exit, select File from the **Main** menu, and then click **Exit**.