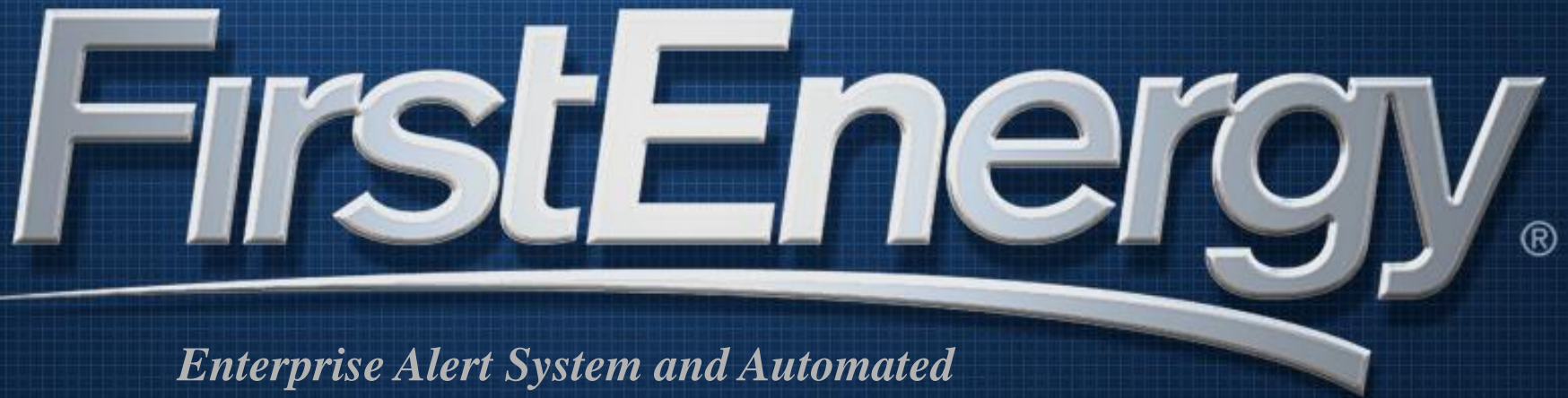


E-Notification for OSI PI®



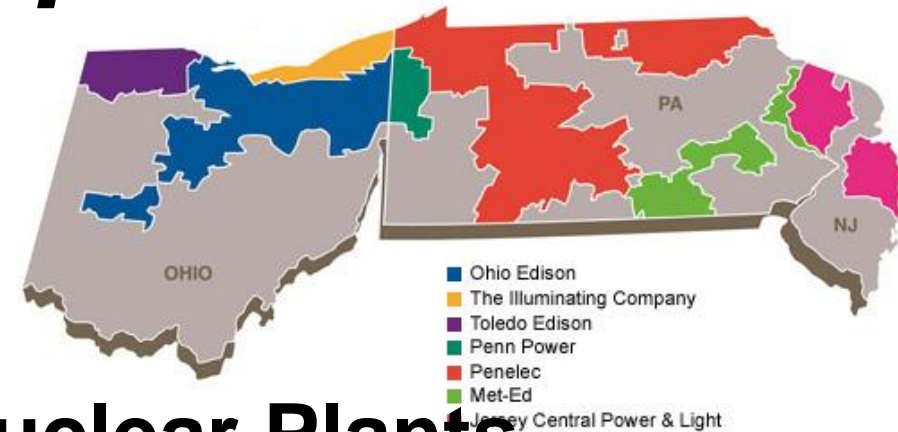
*Enterprise Alert System and Automated
Reporting Applications at First Energy*

Presented By:

Ron Carson, FEC

Mike Santucci, ECG

First Energy Corporation



- **9 Fossil Plants, 3 Nuclear Plants**
- **4th largest investor-owned electric system in the United States**
- **4.3 million customers within 36,100 miles of Ohio, Pennsylvania and New Jersey**

First Energy PI System

- **PI3 Installed 1997**
- **9 Fossil Plants have NT PI Servers**
- **2 Corporate PI Servers**
- **100,000+ Tags in the PI system**
- **Bailey Infi90, Westinghouse, Honeywell Modicon, A/B, and PlantView Interfaces**
- **100's of PI users.**

Automate Everything!!!

- **Overwhelming Amount of Data is Now Available**
- **Manpower-Corporate Downsizing-Less People-More Responsibility**
- **Need to Filter Useable Information**
- **Need for Event Based Monitoring**
- **Tell me when to look at the Data**
- **Automated Report Generation**
- **Personal Alarms vs DCS Alarms**

FEC Notification System

Interface available through Web Based Portal

- **Enterprise-Wide, User-Administered** from any location within the Corporate WAN using only a standard browser
- Scalable, 1 - 1000+ Users
- User configured events based on any PI point
- Snapshot and Trend of any PI point(s)
- **Built-in security** to allow only FEC users

Notifications and Reports (E-Mail and/or Pager)

- Events (Single point exceeds bounds)
- Reports (List of Descriptions and Values)
- Spreadsheets (DataLink populated)

E-Note: Sign-Up

E-Notification System - Login - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Media Print W Mail Address <http://ecg-ntfs2/ecg-enote/> Go Links »

e notification system

SYSTEM

- [E-Notification Help](#)
- [Web Site Help](#)
- [About E-Notification](#)
- [System Training](#)

USER PROFILE

- [Account Login](#)
- [Request Password](#)
- [Sign Up](#)

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Login
VIEW [PRINTER-FRIENDLY Version](#)

Account Request [Help](#)
[Sign me up!](#)

Account Login [Help](#)
USERNAME:
PASSWORD:
[More Options >>](#)

Request Password [Help](#)
[I forgot my password!](#)

Sign-in with username and password or click here to make a new account

E-Note: Sign-Up Detail

E-Notification System - Sign Up - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Media Print Mail News RSS Feeds

Address http://ecg-ntfs2/ecg-enote/userinfo.asp Go Links

e notification system

Fill In Required Information

Sign Up
VIEW [PRINTER-FRIENDLY](#) Version

All fields are required except E-Pager.

Sign Up Help

First Name: Michael Last Name: Santucci

Phone Number: 330 869-9949

E-mail Address: Santuccim @ FirstEnergy

Send in: ☒ HTML ☐ Plain Text

E-Pager Address: 3305043751 @ FEC.PAGE

E-Pager Type: F.E.C Internet Page

User Name: DEMO

Password: [masked]

Confirm Password: [masked] This must match the above password.

Continue Cancel

Restricted Domains

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[E-Notification Help](#)
[Web Site Help](#)
[About E-Notification](#)
[System Training](#)

USER PROFILE
[Account Login](#)
[Request Password](#)
[Sign Up](#)

Done Local intranet

E-Note: User Profile

E-Notification System - User Profile - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://ecg-ntfs2/ecg-enote/review.asp>

enotification system

Michael Santucci (DEMO) - ON Last Visit: 2/28/2002 2:16:28 PM

SYSTEM

- [E-Notification Help](#)
- [Web Site Help](#)
- [About E-Notification](#)
- [System Training](#)

USER PROFILE

- [Only E-Larms](#)
- [Only E-Reports](#)
- [Only E-XLs](#)
- [Only E-Trends](#)
- [Edit User Info](#)
- [Account Logout](#)

APPS DOWN

Burger
2.4 hours

User Profile
VIEW [PRINTER-FRIENDLY](#) Version

E-Larms [Help](#)

Out High Normal Out Low Bad Quality Dig Out

Select	Dest	Plant	Description	Values
No E-Larms found				
Add/Edit	Delete	Trend		Toggle

E-Reports [Help](#)

Select	Dest	Time	Description	# pts
No E-Reports found				
Add/Edit	Delete	Trend		Toggle

E-XLs [Help](#)

Select	Dest	Time	Description	Size
No E-XLs found				
Add/Edit	Delete	View		Toggle

E-Trends [Help](#)

Select	Dest	Time	Description	STAT	# pts
No E-Trends found					
Add/Edit	Delete	Trend			

Local intranet

Click to Add an E-Larm

E-Note: E-Larm Search

E-Notification System - Add E-Larm Menu - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail News RSS Feeds

Address http://ecg-ntfs2/ecg-enote/search.asp?featureType=E-Larm Go Links »

enotification system

Michael Santucci (DEMO) - ON Last Visit: 2/28/2002 2:16:28 PM

SYSTEM

- [E-Notification Help](#)
- [Web Site Help](#)
- [About E-Notification](#)
- [System Training](#)

USER PROFILE

- [Only E-Larms](#)
- [Only E-Reports](#)
- [Only E-XLs](#)
- [Only E-Trends](#)
- [Edit User Info](#)
- [Account Logout](#)

APPS DOWN

Burger
2.5 hours

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Add E-Larm Menu

VIEW [PRINTER-FRIENDLY](#) Version

If you want to search ALL locations or ALL data types, you do not need to make a selection for that item in the selection menu. All are selected by default.

Search for Points Help

LOCATIONS:
Note: to select multiple locations, hold down the CTRL key.
All locations are selected by default

Edgewater
Engineering
Glenview
Lakeshore
Mansfield
richland
Sammis
West Lorain

DESCRIPTION: *

PI TAG: *sinusoid*

ENG. UNIT: *

DATA TYPE:
All data types are selected by default

Blob
Digital
Float16

SEARCH CANCEL

Select Location

Define Search String

E-Note: E-Larm Configuration

The screenshot shows the 'Configure E-Larm Menu' web application in Microsoft Internet Explorer. The browser address bar shows 'http://ecg-ntfs2/ecg-enote/E-Larm.asp'. The page title is 'E-Notification System - Configure E-Larm Menu - Microsoft Internet Explorer'. The user is logged in as 'Michael Santucci (DEMO) - ON'. The page has a 'Last Visit: 2/28/2002 2:16:28 PM' timestamp. The main content area is titled 'Configure E-Larm Menu' and includes a 'VIEW PRINTER-FRIENDLY Version' link. A note states: 'For digital tags, all values are required. For all others, you must have EITHER a High or Low Value (you can also have both) and all other values are required except Deadband.' The configuration form includes the following fields and options:

- TAG:** SINUSOID
- VALUE:** 98.35
- ENABLE:** ☒
- LOCATION:** Mansfield
- TYPE:** Float32
- ENG UNIT:** Format: 0.00
- DESTINATION:** ☒ :Email ☐ :Epager ☐ :Both ☐ :None
- TRIGGER E-REPORT:** ☐ NO E-REPORT
- TRIGGER E-XL:** ☐ NO E-XL
- QUALITY:** ☐ Check if you want to report on Bad Quality.
- RANGE:** High Value: 80 Low Value: 20 Deadband: 10
- Description:** 12 HR Sine Wave

At the bottom of the form are buttons for 'Continue', 'Trend', 'Table', and 'Cancel'. The left sidebar contains links for 'Web Site Help', 'USER PROFILE', 'Only E-Larms', 'Only E-Reports', and 'Only E-XL'. The bottom of the sidebar shows 'APPS DOWN' for 'Burger' (2.6 hours) and 'Developed by ECG License Agreement'.

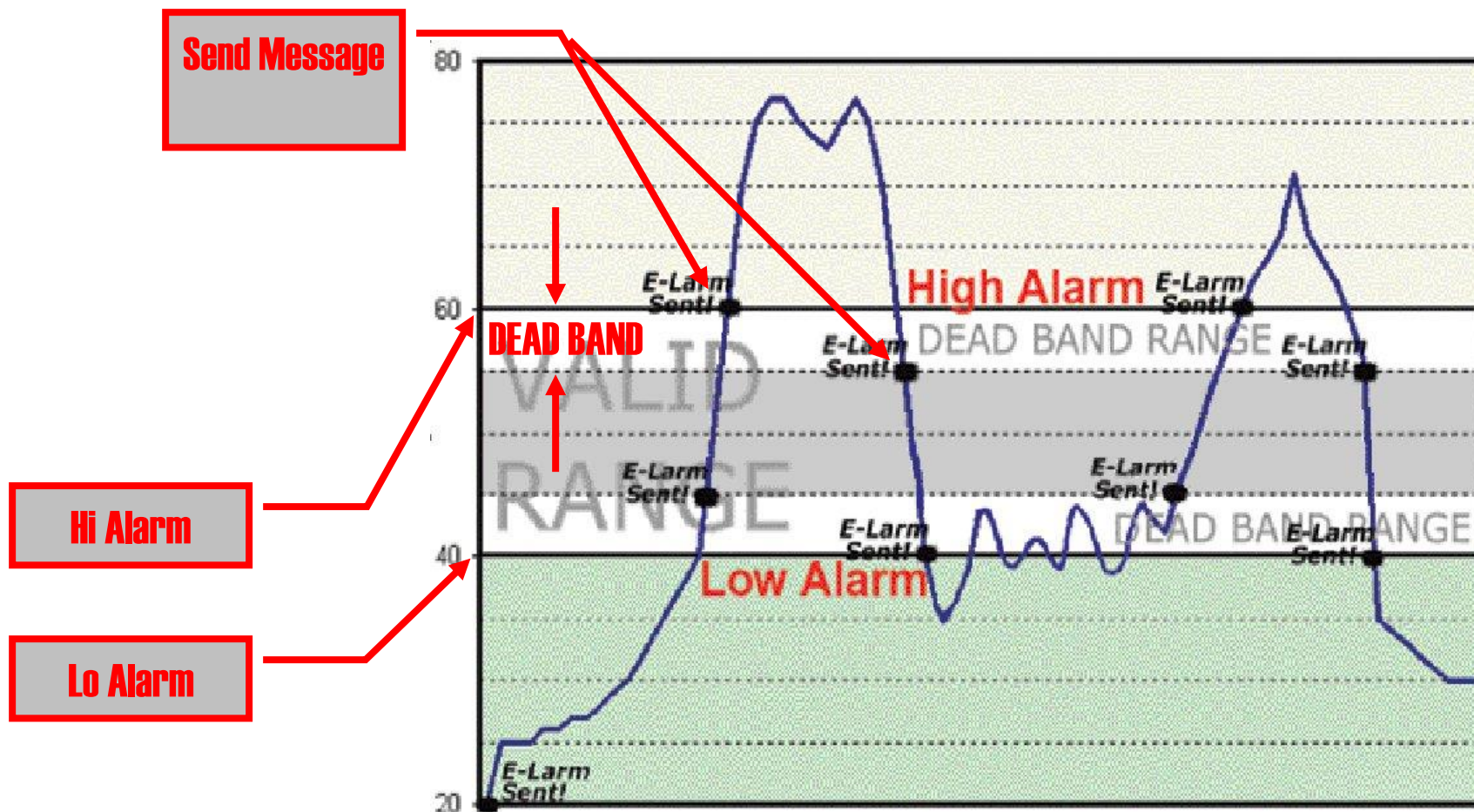
Annotations with yellow arrows point to the following fields:

- Snapshot Value:** Points to the 'VALUE' field (98.35).
- Location:** Points to the 'LOCATION' field (Mansfield).
- Tag Name:** Points to the 'TAG' field (SINUSOID).
- Point Type & Eng Units:** Points to the 'ENG UNIT' field (Format: 0.00).

Annotations with red arrows point to the following fields:

- Select Alarm Routing:** Points to the 'DESTINATION' radio button group.
- Configure Event Bounds:** Points to the 'RANGE' fields (High Value, Low Value, Deadband).
- Description=E-Mail Subject:** Points to the 'Description' text field.

E-Larm Triggering



E-Note: User Profile 1 Alarm

E-Notification System - User Profile - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://ecg-ntfs2/ecg-enote/review.asp>

enotification system

Michael Santucci (DEMO) - ON Last Visit: 2/28/2002 2:16:28 PM

SYSTEM

[E-Notification Help](#)
[Web Site Help](#)
[About E-Notification](#)

User Profile
VIEW [PRINTER-FRIENDLY](#) Version

E-Larms Out High Normal Out Low Bad Quality Dig Out [Help](#)

Select	Dest	Plant	Description	Values
<input type="checkbox"/>	<input checked="" type="checkbox"/>	BMP	12 HR Sine Wave	
Add/Edit		Delete	Trend	Toggle Values

E-Reports [Help](#)

Select	Dest	Time	Description	# pts
No E-Reports found				
Add/Edit		Delete	Trend	Toggle

E-XLs [Help](#)

Select	Dest	Time	Description	Size
No E-XLs found				
Add/Edit		Delete	View	Toggle

E-Trends [Help](#)

Select	Dest	Time	Description	STAT # pts
No E-Trends found				
Add/Edit		Delete	Trend	

APPS DOWN
Burger
2.8 hours

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ECG
[License Agreement](#)

Local intranet

One E-Larm Set-Up

Click to Add an E-Report

E-Larm is Color Coded

E-Note: E-Report Setup

E-Notification System - Configure E-Report Menu - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail News RSS Feeds

Address http://ecg-ntfs2/ecg-enote/E-Report.asp?id=768 Go Links

About E-Notification

Account Logout

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Done Local intranet

Point Configuration Menu

Eastlake

#	Tag Name/Equation	Description	Format
#1	TagAvg('Sinusoid', '15m', '1M')	Demonstration Tag	0.00
#2	SINUSOID.	Sine wave-12 HR period	0.00

Ghent-pi

#	Tag Name/Equation	Description	Format
#3	SINUSOID	12 Hour Sine Wave	0.0 DEG
#4	SINUSOID2	12 Hour Sine Wave	0
#5	SINUSOID3	12 Hour Sine Wave	0.00

Update Points Add Points Delete Points Trend Points Values

Edit E-Report Configuration

Description: DEMO 2/22/2002 2:53:01 PM

Enable: ☒ On ☐ Off Turn this E-Report on or off.

Destination: ☒ Email ☐ Epager ☐ Both

Pager Label: Left Column: Description Right Column: PI Value

Sharing: ☐ Allow others to subscribe to this E-Report.

☒ Send this E-Report at the regular interval specified below.

FREQUENCY: Every 6 Hours, Starting: 12 AM Ending: 11 PM

☐ Send this E-Report up to two specific times during the day.

DISCRETE: First Hour: 12 AM Second Hour: 12 AM

Select Up to 200 Tags
from Any one or more PI
Servers

Add Points or PE
Equations

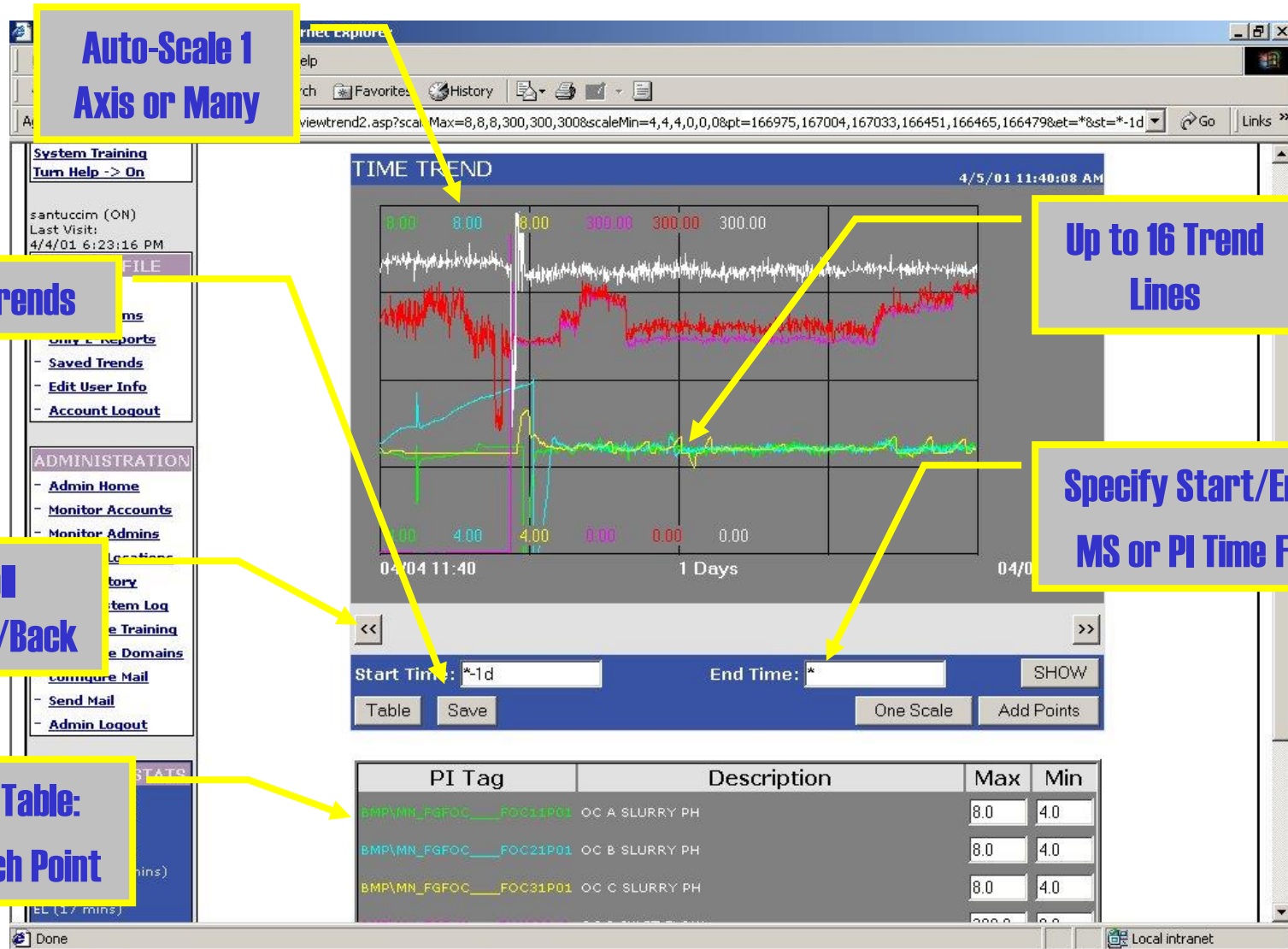
Select Destination

Schedule Delivery

Choose Report
Subject

View Values or Trends

E-Note: Trend Archive Data



E-Note: Table Archive Data

e-notification system - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Print

Address **Tag Name** [http://e-notification.com/monitable.asp?pt=105240,105241,105242,105243&st=17-Mar-01%2003:59:11&et=18-Mar-01%2001:48:17&npoints=24](#) Go Links

Table
VIEW [PRINTER-FRIENDLY](#) Version

Time

TIME	monu1grw	monu2grw	monu3grw	monu4grw
<input type="checkbox"/> 3/17 3:59	0	732.4334	731.9297	292.7514
<input type="checkbox"/> 3/17 4:56	0	765.386	773.2518	295.7291
<input type="checkbox"/> 3/17 5:53	0	762.1668	769.9341	293.1898
<input type="checkbox"/> 3/17 6:49	0	760.0593	765.3936	287.2742
<input type="checkbox"/> 3/17 7:46	0	768.1202	782.0859	295.76
<input type="checkbox"/> 3/17 8:43	0	784.049	783.2025	293.9435
<input type="checkbox"/> 3/17 9:40	0	780.9156	782.4064	293.1356
<input type="checkbox"/> 3/17 10:37	0	778.8644	781.8431	295.4276
<input type="checkbox"/> 3/17 11:34	0	756.9819	757.0787	293.8657
<input type="checkbox"/> 3/17 12:31	0	749.8755	755.2753	293.3777
<input type="checkbox"/> 3/17 13:28	0	754.4327	756.1591	292.7852
<input type="checkbox"/> 3/17 14:25	0	733.3264	735.2908	291.0187
<input type="checkbox"/> 3/17 15:22	0	737.0291	740.8556	293.7127
<input type="checkbox"/> 3/17 16:19	0	740.1263	742.6655	291.329
<input type="checkbox"/> 3/17 17:16	0	750.8979	781.4946	291.8242
<input type="checkbox"/> 3/17 18:12	0	763.4948	783.9611	295.3103
<input type="checkbox"/> 3/17 19:09	0	780.0428	780.1292	292.2544
<input type="checkbox"/> 3/17 20:06	0	771.0909	776.1439	295.3211
<input type="checkbox"/> 3/17 21:03	0	778.7843	780.71	293.4714
<input type="checkbox"/> 3/17 22:00	0	755.4166	767.2466	294.0356
<input type="checkbox"/> 3/17 22:57	0	765.6028	760.3403	295.4273
<input type="checkbox"/> 3/17 23:54	0	736.9268	739.2303	295.3287
<input type="checkbox"/> 3/18 0:51	0	761.342	728.816	290.4111
<input type="checkbox"/> 3/18 1:48	No Data	No Data	No Data	No Data

Select an Interval to Zoom ...

... or Specify Start/End Time and No. of Points

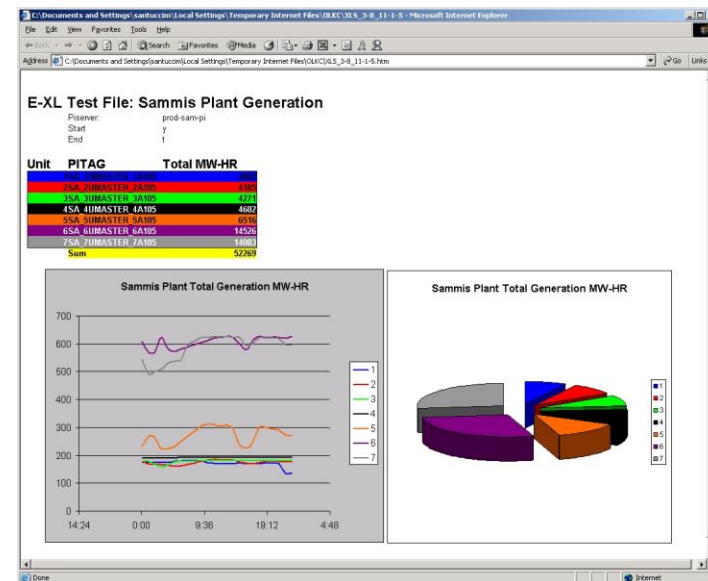
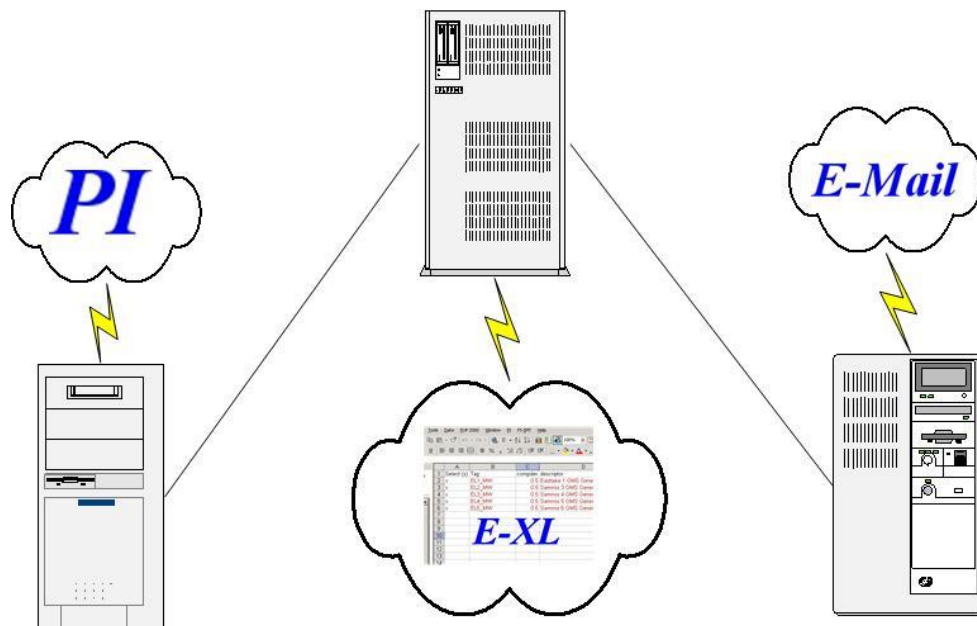
Start Time: 17-Mar-01 03:59:11 End Time: 18-Mar-01 01:48:17 # Points: 24

Trend Show Add Points

LOCAL BRV (15 mins) CCR (15 mins) EREP (15 mins) ESO (15 mins) GRW (15 mins) HBH (15 mins) HCHK (0 mins) MON (15 mins)

Local intranet

E-Note: Spreadsheet Reports



Excel: Configure Report using Excel® with DataLink

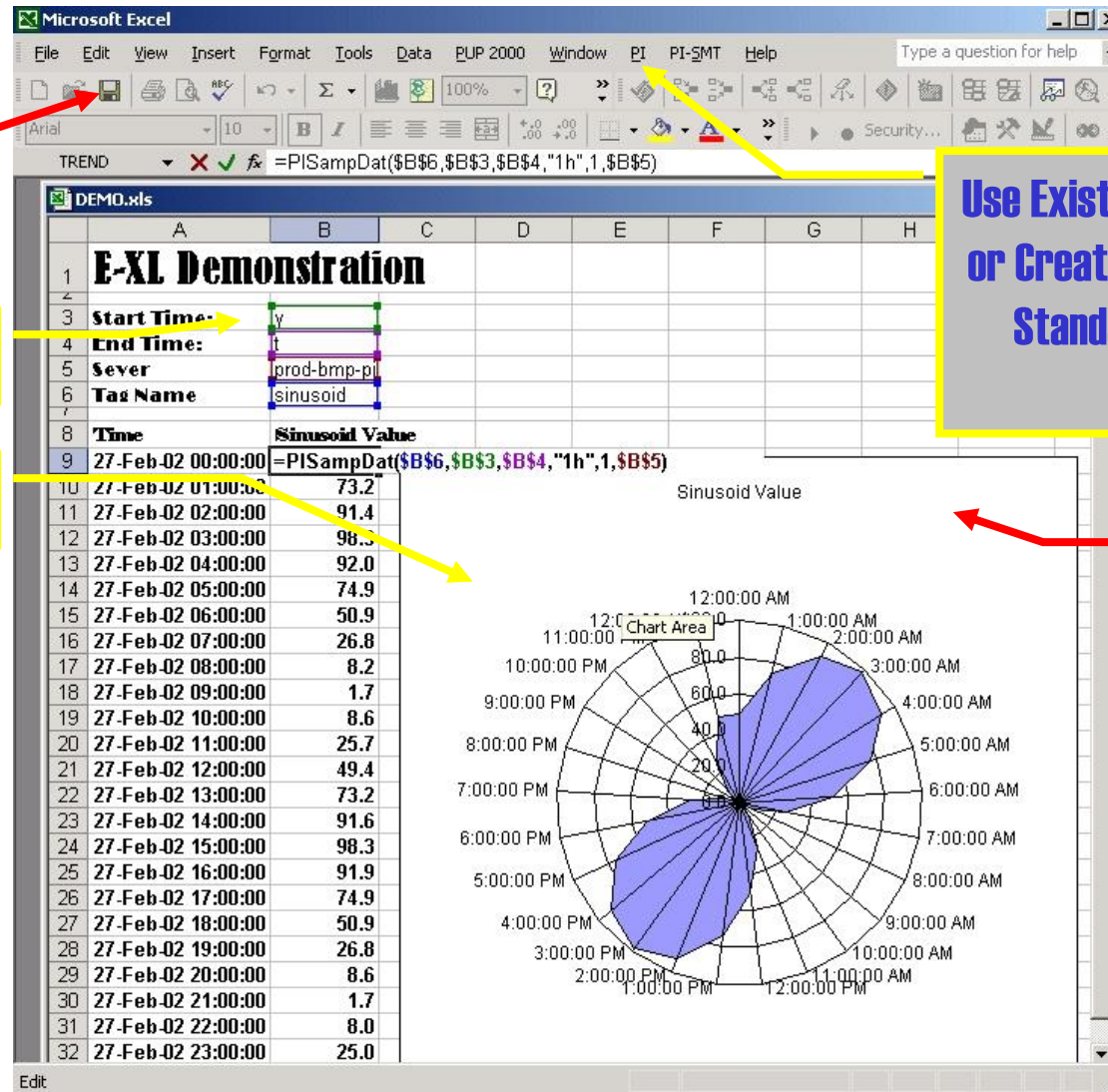
Save File

Server Location

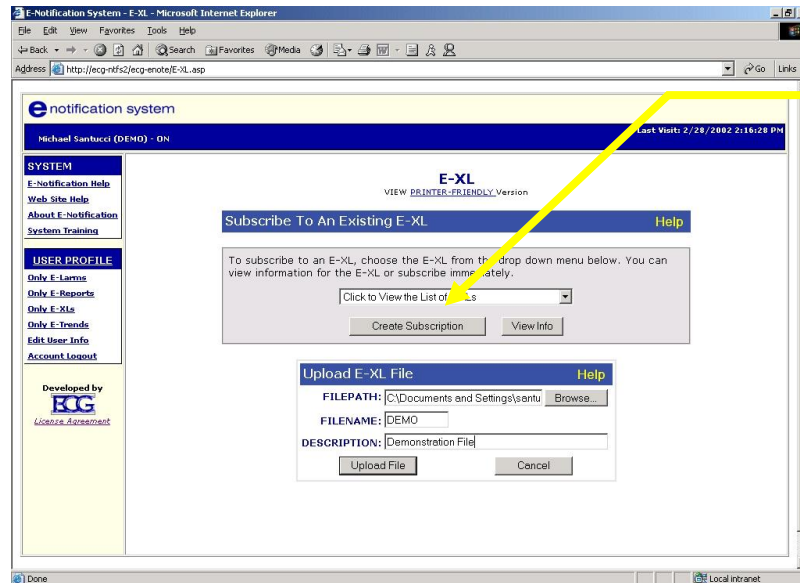
Format Report

Use Existing Spreadsheets
or Create New Ones using
Standard Excel with
Datalink

Set Print Area,
use Print
Preview



E-Note: Configure E-XL Properties



Browse to Find File



**Set File attachment Format
(XLS, HTM, CSV)**

**Configure Destination
(Email or FTP)**

**Configure When Message
will be Delivered**

E-XL Configuration [Help](#)

Description:

File Name:

Enable: ☒ On ☐ Off Turn this E-XL on or off.

Format: Select the destination file format.

Destination: ☐ Email ☐ FTP ☒ Both

Sharing: ☐ Allow others to subscribe to this E-XL.

FTP: port user name password

use proxy ☐ PASV mode ☐ over write ☐ new file ☒

FREQUENCY: ☐ Send this E-XL at the regular interval specified below.
Every Hours, Starting: Ending:

DISCRETE: ☒ Send this E-XL up to two specific times during the day.
First Hour: Second Hour:

TRIGGERED: ☐ Only send when triggered.

[Continue](#) [Edit File](#) [Delete](#) [Cancel](#)

E-Note: User Profile *(One of Each)*

E-Notification System - User Profile - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print View Source

Address http://ecg-ntfs2/ecg-enote/review.asp Go Links

enotification system

Michael Santucci (DEMO) - ON Last Visit: 2/28/2002 2:16:28 PM

User Profile
VIEW [PRINTER-FRIENDLY](#) Version

E-Alarms [Help](#)

Select	Dest	Plant	Description	Values
<input type="checkbox"/>		BMP	12 HR Sine Wave	
Add/Edit Delete Trend Toggle Values				

E-Reports [Help](#)

Select	Dest	Time	Description	# pts
<input type="checkbox"/>		Every 6 hrs	DEMO 2/28/2002 2:53:01 PM	5
Add/Edit Delete Trend Toggle				

E-XLs [Help](#)

Select	Dest	Time	Description	Size
<input type="checkbox"/>		7 AM, 4 PM	Demonstration File	18 kb
Add/Edit Delete View Toggle				

E-Trends [Help](#)

Select	Dest	Time	Description	STAT	# pts
No E-Trends found					
Add/Edit Delete Trend					

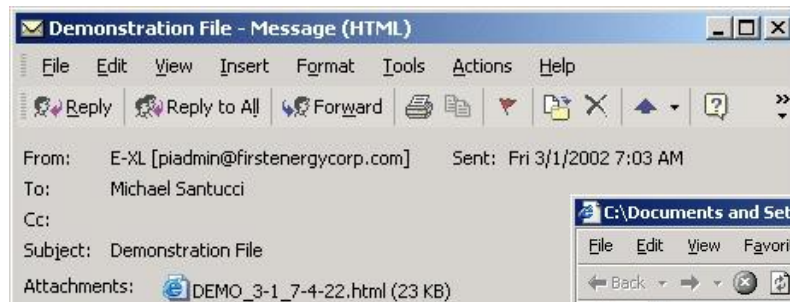
Local intranet

One E-Larm Set-Up,
Sending it to E-Mail

One Report Set-Up,
Sending it to Both E-Mail
and Pager every 6 Hrs.

One E-XL Set-Up,
Sending it to Both E-Mail
and FTP Server at 7:00 AM

Outlook: Message Attachment



Scheduled E-XL

DEMO

[Click here to modify this e-xl.](#)

Filename: DEMO

Description: Demonstration File

Owner: Michael Santucci santuccim@ecg-inc.com

Generation Time: 3/1/2002 7:04:43 AM

Process Time: 12 seconds

Sent by the [E-Notification System](#).

For any problems please contact Engineering Cons

Phone: (330) 869-9949

Email: support@ecg-inc.com

Web Site: <http://www.ecg-inc.com>

E-Mail Report



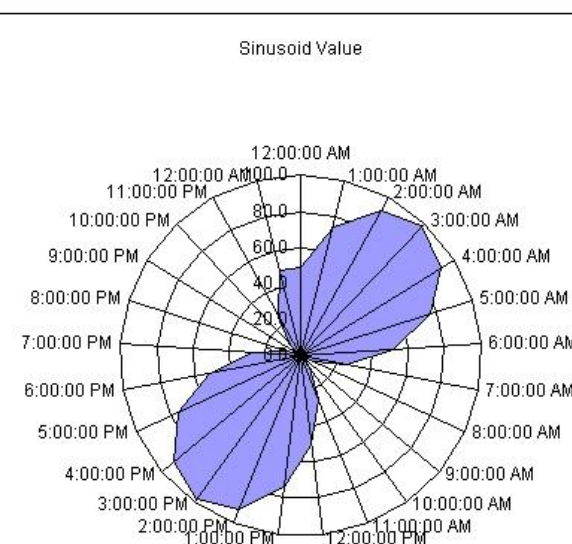
E-XL Demonstration

Start Time: y
End Time: t
Sever prod-bmp-pi
Tax Name sinusoid

Time Sinusoid Value

27-Feb-02 00:00:00	49.1
27-Feb-02 01:00:00	73.2
27-Feb-02 02:00:00	91.4
27-Feb-02 03:00:00	98.3
27-Feb-02 04:00:00	92.0
27-Feb-02 05:00:00	74.9
27-Feb-02 06:00:00	50.9
27-Feb-02 07:00:00	26.8
27-Feb-02 08:00:00	8.2
27-Feb-02 09:00:00	1.7
27-Feb-02 10:00:00	8.6
27-Feb-02 11:00:00	25.7
27-Feb-02 12:00:00	49.4
27-Feb-02 13:00:00	73.2
27-Feb-02 14:00:00	91.6
27-Feb-02 15:00:00	98.3
27-Feb-02 16:00:00	91.9
27-Feb-02 17:00:00	74.9
27-Feb-02 18:00:00	50.9
27-Feb-02 19:00:00	26.8
27-Feb-02 20:00:00	8.6
27-Feb-02 21:00:00	1.7
27-Feb-02 22:00:00	8.0

The Spreadsheet is populated with PI Data at the specified time then converted to HTML for viewing with a standard browser.



E-Note: E-XL Message

File Extension	Features	Limitation
.CSV	Data can be read in to any text editor, notepad, wordpad, etc.	No Formatting Available
.HTM	Data can be Formatted and viewed in any standard browser	Objects such as Charts Are not supported.
.XLS	Charts and most other features of Excel are supported	Must be opened in an Excel viewer.

***First Energy Corporation
Customized Notification
Examples and Automated
Excel Reports***

E-Larm: Interface Trouble

Configure E-Larm Menu Help

0.16
0.11
0.06

03/02 14:11 4 Days 03/06

TAG: MN_1BAI___1ULD1P01 VALUE:

ENABLE: ☒ LOCATION: Mansfield TYPE: Float16

ENG UNIT: MW Format: 0

DESTINATION: ☒ :Email ☐ :Pager ☐ :Both

TRIGGER E-REPORT: ☐ NO E-REPORT

TRIGGER E-XL: ☐ NO E-XL

QUALITY: ☒ Check if you want to report on Bad Quality.

RANGE: High Value: 1000 Low Value: 50 Deadband: 50

Description: Mansfield Unit 1 MW Alert

Continue Trend Table Delete Cancel

**Point Stopped
Updating**

Quality Flag Set

What:

Interface Trouble

Who:

PI Admins

Why:

Point is Bad Quality

When:

•Non-Numeric Value

return from PI

**•Exception Max Time
exceeded without a fresh
Snapshot.**

E-Report: Pager Messages



**List of Unit MW
Values**

**Silent Delivery
Every Hour and
After Any Unit
On/Off**

**Snapshots and PE
Equations**

**Up to 500
Characters**

What:

Fossil Plants MW's

Who:

Vice Presidents

Plant Managers

Unit Engineers

Tech. Support Group

Why:

**Status of Unit Loads and
On/Off Notifications**

When:

Hourly and by Event

E-XL: Plant Business Report

Current Date / Time
2/28/2002 18:03

**Mansfield
Operating Report**

Operations Crew
Aikens-Mercer
Paulauskas

Net Capabilities	Unit 1 Max 600 Unit 1 Min 350	Unit 2 Max 850 Unit 2 Min 300	Unit 3 Max 820 Unit 3 Min 300
Current Gross Gen.	641	732	779
Current Aux. Pwr.	63	62	68
Current Net Gen.	578	670	710
Station Net Gen.		1959	
Current Days on Line	58.8	59.4	95.1
Record Run Days	200.7	223.2	326.9
Design Heat Rate	9454	9390	9380
Current Heat Rate	10,173	10,301	10,008
Delta HR From Design	719	911	628
AGC MW / Min.	6	12	12
SO2 Current	0.54	0.53	0.40
SO2 Daily Avg.	0.42	0.38	0.36
NOx Set Point (MW Dmd)	0.38	0.39	0.41
NOx Last Hr Avg	0.32	0.32	0.33
NOx Daily Avg.	0.36	0.35	0.42
Nox 15 Day Avg.	0.44	0.35	0.46
Nox 30 Day Avg.	0.45	0.35	0.46
Steam Generators			
FEGT	2,351	2,268	2,188
Firing Rate Error %	1.6	-1.7	-1.6
Max Supht'r Tube Temp	1057	1081	1048
Main Stm Temp 8 Hr Avg.	1002	997	999
RH Temp 8 Hr Avg.	1004	1000	1000
% Boiler O2	3.4	3.6	3.8
"A" Flue CO PPM	288	135	153
"B" Flue CO PPM	56	231	131
AH Out Temp "A"	253	304	315
AH Out Temp "B"	359	303	308

Snapshots

SQL Data

Excel Macro Flags
Alarm Limits

What:

**Plant Operating Data
Report**

Who:

**Plant Manager
Operation Manager
Unit Engineers
Tech. Support Group**

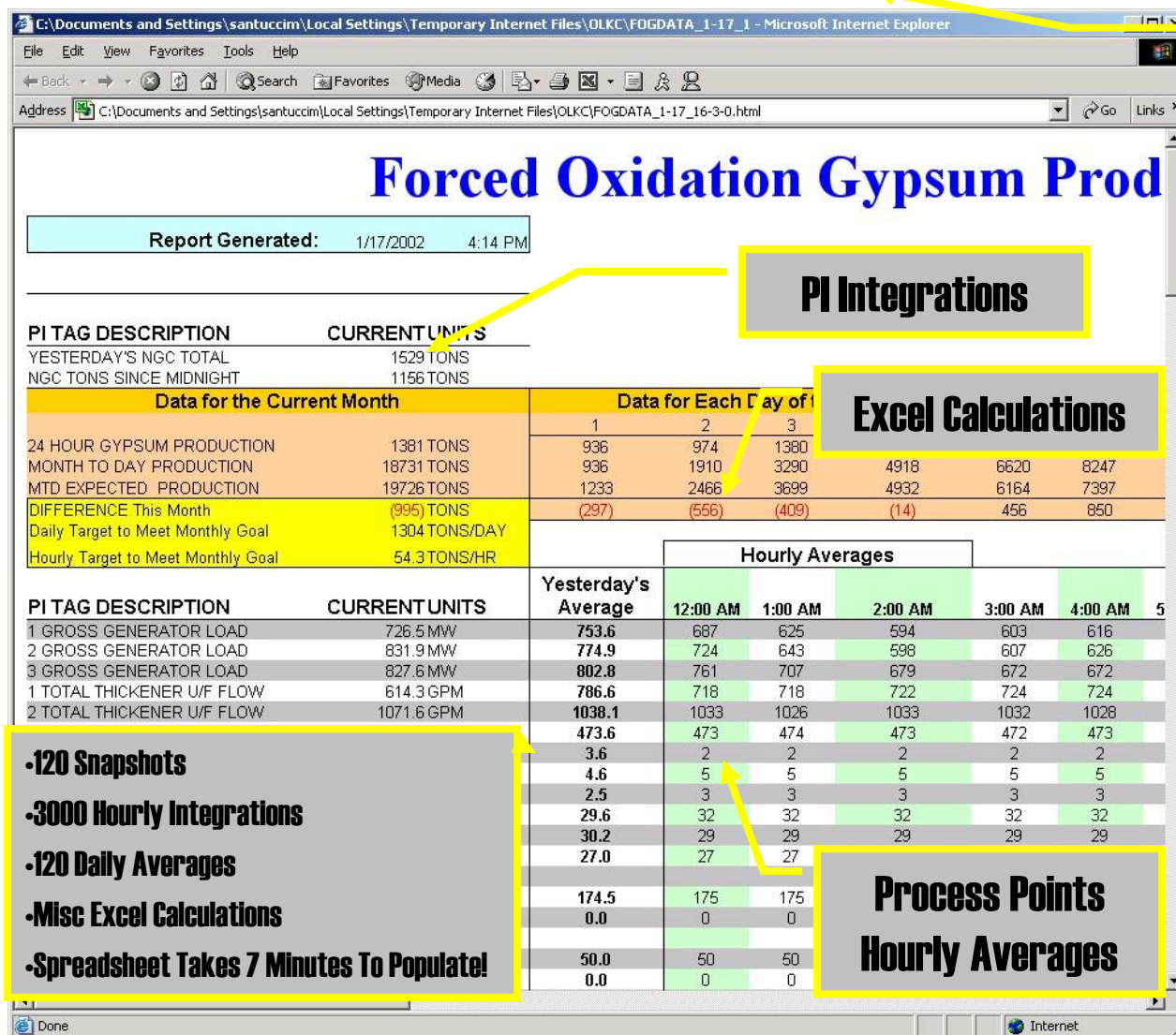
Why:

**Daily Review of Past
Days' Operating Data**

When:

**Mornings and
Afternoons @ 6:00**

E-XL: Process Reporting



What:

FOG Plant Production

Who:

Plant Manager

FOG Manager

External Consultant

Why:

Monthly Goal

Achievement Progress

When:

Mornings and Shifts

E-XL: Emissions Tracking

First Energy Corporation Running 30 Nox Activity

#MBTU	Burger			Mansfield			Sammis						
Date	Unit 3	Unit 4	Unit 5	Unit 1	Unit 2	Unit 3	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
02/05/02	0.18	0.55	0.69	0.52	0.38	0.52	0.51	0.41	1.07	0.42	0.51	0.42	0.37
02/06/02	0.17	0.46	0.95	0.52	0.41	0.47	0.57	0.38	1.14	0.43	0.50	0.43	0.40
02/07/02	0.17	0.41	0.87	0.55	0.38	0.48	0.51	0.41	1.11	0.42	0.53	0.45	0.40
02/08/02	0.17	0.75	0.84	0.52	0.40	0.50	0.50	0.39	1.12	0.43	0.50	0.43	0.41
02/09/02	0.17	0.63	0.76	0.55	0.34	0.52	0.48	0.32	1.06	0.40	0.39	0.32	0.37
02/10/02	0.17	0.59	0.69	0.41	0.29	0.47	0.47	0.31	1.07	0.40	0.41	0.30	0.37
02/11/02	0.17	0.76	0.83	0.53	0.34	0.51	0.51	0.39	1.20	0.51	0.46	0.47	0.39
02/12/02	0.17	0.75	0.87	0.55	0.36	0.53	0.50	0.41	1.12	0.60	0.51	0.48	0.43
02/13/02	0.18	0.81	0.91	0.45	0.34	0.49	0.46	0.53	1.13	0.55	0.46	0.46	0.41
02/14/02	0.18	0.97	0.92	0.47	0.33	0.55	0.38	0.50	1.13	0.55	0.46	0.46	0.41
02/15/02	0.17	0.68	0.87	0.50	0.39	0.52	0.43	0.53	1.2	0.55	0.46	0.46	0.41
02/16/02	0.17	0.80	0.19	0.51	0.39	0.47	0.44	0.56	1.1	0.55	0.46	0.46	0.41
02/17/02	0.17	0.84	0.10	0.40	0.33	0.41	0.42	0.53	1.1	0.55	0.46	0.46	0.41
02/18/02	0.17	0.44	0.22	0.48	0.36	0.43	0.40	0.54	1.17	0.48	0.53	0.47	0.40
02/19/02	0.17	0.68	0.15	0.51	0.35	0.51	0.38	0.57	1.16	0.52	0.50	0.48	0.39
02/20/02	0.17	0.54	0.35	0.51	0.35	0.43	0.43	0.45	1.13	0.53	0.49	0.43	0.37
02/21/02	0.17	0.50	0.27	0.49	0.37	0.46	0.42	0.47	1.17	0.51	0.49	0.41	0.45
02/22/02	0.17	0.51	0.08	0.48	0.40	0.45	0.42	0.47	1.19	0.51	0.52	0.41	0.38
02/23/02	0.17	0.50	0.10	0.33	0.33	0.47	0.42	0.44	0.87	0.49	0.51	0.42	0.37
02/24/02	0.17	0.62	0.10	0.35	0.31	0.43	0.44	0.38	0.96	0.44	0.47	0.45	0.38
02/25/02	0.17	0.79	0.10	0.37	0.33	0.44	0.48	0.48	1.09	0.48	0.49	0.41	0.40
02/26/02	0.17	0.77	0.05	0.36	0.35	0.43	0.48	0.41	1.11	0.49	0.48	0.42	0.41
02/27/02	0.17	0.82	0.03	0.31	0.34	0.43	0.51	0.46	1.12	0.50	0.50	0.40	0.44
02/28/02	0.17	0.82	0.06	0.35	0.34	0.42	0.48	0.49	1.09	0.46	0.48	0.41	0.42
03/01/02	0.17	0.81	0.12	0.24	0.33	0.42	0.43	0.41	1.08	0.50	0.47	0.35	0.38
03/02/02	0.17	0.79					0.44	0.39	1.07	0.50	0.45	0.42	0.38
03/03/02	0.17	0.66					0.44	0.40	1.07	0.51	0.46	0.40	0.36
03/04/02	0.17	0.31					0.46	0.54	1.07	0.48	0.43	0.40	0.40
03/05/02	0.17	0.29					0.48	0.51	1.06	0.49	0.44	0.39	0.41
03/06/02	0.17	0.29					0.46	0.50	1.05	0.46	0.45	0.34	0.40
03/07/02	0.17	0.28					0.49	0.46	1.01	0.47	0.47	0.35	0.41
30 Day Avg	0.17	0.63	0.36	0.40	0.30	0.40	0.46	0.45	1.10	0.49	0.49	0.42	0.40

Three PI Servers

Process Points
Hourly Averages

What:

Nox Emissions Report

Who:

Environmental

Conv Econ

Plant Staff

Why:

Monthly Target

Nox Credits

When:

Mornings

Where:

Corporate MS Server

E-XL: Interface Performance

PI Points Output from Calculation Engine

What:
Fuel Tracking Interface

Who:
PI Administrator and Third Party Support

Why:
Bad Quality Points
Flat-Lined Points
Overactive Points

When:
Daily

Excel Macro Sorts Points and ColorCodes "over/under active points"

PI Points Needed in Calculation System

No. Of Archive Events for The Specified Time

-Percent Good PI Calc on Each PI Point

Statistics

Total Archive Events	287541
Average Events per Point	913
Maximum Events per Point	8489
Minimum Events per Point	1
Total Points	315
Estimated Archive File Space (KB)	575

Total Inputs: 202
Inputs < 100% Qual: 8
Inputs < 90% Qual: 8

Total Outputs: 113
Outputs < 100% Qual: 32
Outputs < 90% Qual: 32

Process Time: 11d
Start Time: 11d
End Time: 11d

2/Min/Day: 2880
3/Min/Day: 4320
4/Min/Day: 5760
5/Min/Day: 7200
6/Min/Day: 8640

DFTS Inputs

PITAG	Description	Percent Good	Archive Events
MN FDCDSF 1S0205AI	SHUTTLE CAR 2 POSITION	100.00	8489
MN FDCDSB 2S0805AI	SHUTTLE CAR 8 POSITION	100.00	8456
MN FDCDSB 1S0105AI	SHUTTLE CAR 1 POSITION	100.00	8428
MN FDCDSB 3S4B05AI	SHUTTLE CAR 4B POSITION	100.00	8397
MN FDCDSB 3S3B05AI	SHUTTLE CAR 3B POSITION	100.00	8374
MN FDCDSB 2S0705AI	SHUTTLE CAR 7 POSITION	100.00	8342
MN FDCDSB 3S0305AI	SHUTTLE CAR 3 POSITION	100.00	8303
MN FDCDSB 3S1B05AI	SHUTTLE CAR 1 POSITION	100.00	8281
MN FDCDSB 1S0405AI	SHUTTLE CAR 4 POSITION	100.00	8248
MN FDCDSB 2S0505AI	SHUTTLE CAR 5 POSITION	100.00	8164
MN FDCDSB 2S0605AI	SHUTTLE CAR 6 POSITION	100.00	8163
MN FDCDSCHS 0T6001	SHUTTLE CAR 6 POSITION	100.00	5381
MN FDCDSCHS 0T2001	SHUTTLE CAR 2 POSITION	100.00	5349
MN FDCDSCHS 0T1901	SHUTTLE CAR 1 POSITION	100.00	5207
MN FDCDSSTR 0TRC01	SHUTTLE CAR 1 POSITION	100.00	2267
MN FDCDSCHS 0T4501AI	CONV 45 TONS/HOUR	100.00	1887
MN 2JPLV02H B2278	H MILL COAL FLOW TO BLR	100.00	651
MN 2JPLV02G B2277	G MILL COAL FLOW TO BLR	100.00	650
MN 2JPLV02D B2274	D MILL COAL FLOW TO BLR	100.00	649
MN 2JPLV02C B2273	C MILL COAL FLOW TO BLR	100.00	646
MN 2JPLV02E B2275	E MILL COAL FLOW TO BLR	100.00	644
MN 3JPLV03A B3271	A MILL COAL FLOW TO BLR	100.00	644
MN 2JPLV02F B2276	F MILL COAL FLOW TO BLR	100.00	643
MN 3JPLV03E B3275	E MILL COAL FLOW TO BLR	100.00	643
MN 3JPLV03C B3273	C MILL COAL FLOW TO BLR	100.00	641
MN 3JPLV03G B3277	G MILL COAL FLOW TO BLR	100.00	641
MN 3JPLV03B B3272	B MILL COAL FLOW TO BLR	100.00	639
MN 3JPLV03F B3276	F MILL COAL FLOW TO BLR	100.00	639
MN FDCDSDF 0DFT BUN	DFT FOR BARGE UNLOADER	100.00	312
MN FDCDSDF 0F3401AO	34 FEEDER FEEDRATE	100.00	296
MN FDCDSDF 0DFT STN	DFT FOR STATION FEEDER AIMED	100.00	296

DFTS Outputs

PITAG	Description	Percent Good	Archive Events
MN 00DFTYRD Sum1920TPH	Flow Rate on 19+20	100.00	7804
MN 00DFTYRD FeederTPH2	Source Flow Rate-BARGE UNL	100.00	7724
MN 00DFTYRD BnkrLZ1TPH	Coal Flow Rate-Bnkr Load Z	100.00	7715
MN 00DFTYRD FeederTPH2OnLZ1	Flow Rate for LZ1-BARGE UN	100.00	7653
MN 00DFTYRD BnkrLZ2TPH	Coal Flow Rate-Bnkr Load Z	100.00	7433
MN 00DFTYRD FeederTPH2OnLZ2	Flow Rate for LZ2-BARGE UN	100.00	7365
MN 00DFTYRD FeederBlend2	Source Blending-BARGE UNLO	100.00	5564
MN 00DFTYRD FeederTPH3	Source Flow Rate-50R	100.00	5046
MN 00DFTYRD FeederTPH3OnLZ2	Flow Rate for LZ2-50R	100.00	5042
MN 00DFTYRD FeederTPH3OnLZ1	Flow Rate for LZ1-50R	100.00	4968
MN 00DFTYRD FeederTPH5OnLZ2	Flow Rate for LZ2-3536 CR	100.00	3983
MN 00DFTYRD FeederTPH5OnLZ1	Flow Rate for LZ1-3536 CR	100.00	3982
MN 00DFTYRD FeederTPH4	Source Flow Rate-45A CONV	100.00	3949
MN 00DFTYRD FeederTPH4OnLZ1	Flow Rate for LZ1-45A CONV	100.00	3410
MN 00DFTYRD FeederTPH4OnLZ2	Flow Rate for LZ2-45A CONV	100.00	2312
MN 00DFTYRD FeederTPH4OnLZ3	Flow Rate for LZ3-45A CONV	100.00	2129
MN 00DFTYRD FeederTPH4OnLZ4	Flow Rate for LZ4-45A CONV	100.00	2099
MN 00DFTYRD FeederTPH4OnLZ5	Flow Rate for LZ5-45A CONV	100.00	1557
MN 00DFTYRD FeederTPH4OnLZ6	Flow Rate for LZ6-45A CONV	100.00	1556
MN 00DFTYRD FeederTPH4OnLZ7	Flow Rate for LZ7-45A CONV	100.00	1505
MN 00DFTYRD FeederTPH4OnLZ8	Flow Rate for LZ8-45A CONV	100.00	491
MN 00DFTYRD FeederTPH4OnLZ9	Flow Rate for LZ9-45A CONV	100.00	1, 37
MN 00DFTYRD FeederTPH4OnLZ10	Flow Rate for LZ10-45A CONV	100.00	14
MN 00DFTYRD FeederTPH4OnLZ11	Flow Rate for LZ11-45A CONV	100.00	1484
MN 00DFTYRD FeederTPH4OnLZ12	Flow Rate for LZ12-45A CONV	100.00	1484
MN 00DFTYRD FeederTPH4OnLZ13	Flow Rate for LZ13-45A CONV	100.00	1484
MN 00DFTYRD FeederTPH4OnLZ14	Flow Rate for LZ14-45A CONV	100.00	1484
MN 00DFTYRD FeederTPH4OnLZ15	Flow Rate for LZ15-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ16	Flow Rate for LZ16-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ17	Flow Rate for LZ17-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ18	Flow Rate for LZ18-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ19	Flow Rate for LZ19-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ20	Flow Rate for LZ20-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ21	Flow Rate for LZ21-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ22	Flow Rate for LZ22-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ23	Flow Rate for LZ23-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ24	Flow Rate for LZ24-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ25	Flow Rate for LZ25-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ26	Flow Rate for LZ26-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ27	Flow Rate for LZ27-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ28	Flow Rate for LZ28-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ29	Flow Rate for LZ29-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ30	Flow Rate for LZ30-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ31	Flow Rate for LZ31-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ32	Flow Rate for LZ32-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ33	Flow Rate for LZ33-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ34	Flow Rate for LZ34-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ35	Flow Rate for LZ35-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ36	Flow Rate for LZ36-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ37	Flow Rate for LZ37-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ38	Flow Rate for LZ38-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ39	Flow Rate for LZ39-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ40	Flow Rate for LZ40-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ41	Flow Rate for LZ41-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ42	Flow Rate for LZ42-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ43	Flow Rate for LZ43-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ44	Flow Rate for LZ44-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ45	Flow Rate for LZ45-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ46	Flow Rate for LZ46-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ47	Flow Rate for LZ47-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ48	Flow Rate for LZ48-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ49	Flow Rate for LZ49-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ50	Flow Rate for LZ50-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ51	Flow Rate for LZ51-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ52	Flow Rate for LZ52-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ53	Flow Rate for LZ53-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ54	Flow Rate for LZ54-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ55	Flow Rate for LZ55-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ56	Flow Rate for LZ56-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ57	Flow Rate for LZ57-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ58	Flow Rate for LZ58-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ59	Flow Rate for LZ59-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ60	Flow Rate for LZ60-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ61	Flow Rate for LZ61-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ62	Flow Rate for LZ62-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ63	Flow Rate for LZ63-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ64	Flow Rate for LZ64-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ65	Flow Rate for LZ65-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ66	Flow Rate for LZ66-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ67	Flow Rate for LZ67-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ68	Flow Rate for LZ68-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ69	Flow Rate for LZ69-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ70	Flow Rate for LZ70-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ71	Flow Rate for LZ71-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ72	Flow Rate for LZ72-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ73	Flow Rate for LZ73-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ74	Flow Rate for LZ74-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ75	Flow Rate for LZ75-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ76	Flow Rate for LZ76-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ77	Flow Rate for LZ77-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ78	Flow Rate for LZ78-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ79	Flow Rate for LZ79-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ80	Flow Rate for LZ80-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ81	Flow Rate for LZ81-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ82	Flow Rate for LZ82-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ83	Flow Rate for LZ83-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ84	Flow Rate for LZ84-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ85	Flow Rate for LZ85-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ86	Flow Rate for LZ86-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ87	Flow Rate for LZ87-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ88	Flow Rate for LZ88-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ89	Flow Rate for LZ89-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ90	Flow Rate for LZ90-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ91	Flow Rate for LZ91-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ92	Flow Rate for LZ92-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ93	Flow Rate for LZ93-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ94	Flow Rate for LZ94-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ95	Flow Rate for LZ95-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ96	Flow Rate for LZ96-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ97	Flow Rate for LZ97-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ98	Flow Rate for LZ98-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ99	Flow Rate for LZ99-45A CONV	100.00	1483
MN 00DFTYRD FeederTPH4OnLZ100	Flow Rate for LZ100-45A CONV	100.00	1483

E-XL: Process Event Reporting

Configure E-Larm Menu

27.25
12.07
-3.1

02/28 18:51 1 Days 03/04 18:51

TAG: ED_4_OPACITY_6M VALUE: 4.2977

ENABLE: ☒ LOCATION: Edgewater TYPE: Float3

ENG UNIT: % Format:

DESTINATION: ☐ Email ☐ Epager ☐ Batch ☐ No

TRIGGER E-REPORT: ☒ EPA: ED4 Opacity Violation Report

TRIGGER E-XL: ☒ EXL Opacity Report

QUALITY: ☐ Check if you want to report on Bad Quality.

RANGE: High Value: 20 Low Value: -50 Deadband: E

Description: EPA: Edge 4 Opacity - 6 Min Average

Continue Trend Table Delete Cancel

**PI Tag That
Triggers Report**

**Report that is
Triggered**

What:

**Opacity Violation
spawns a Spreadsheet
Report**

Who:

**Plant Manager
Environmental Admin**

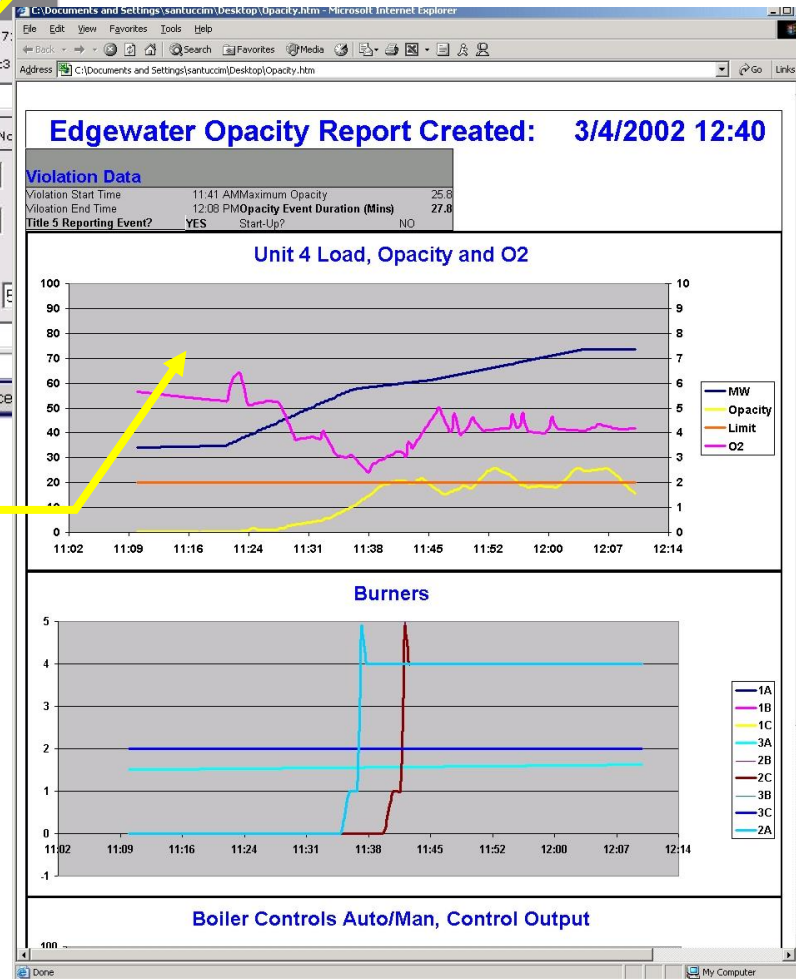
Why:

**Each Violation Must be
Documented with
Reason Code**

When:

**Anytime 6-Min Average
Opacity Exceeds 20%**

**Excel Report is
FTP'ed to Central
Server**



E-XL: Viewer

E-XL Displays - Microsoft Internet Explorer

Address: <http://ghent-pi>

List of Reports

E-XL Displays

SECTIONS: [Main](#) | [All Plants](#) | [Ashtabula](#) | [Bayshore](#) | [Beaver Valley](#) | [Burger](#) | [Davis Besse](#) | [Eastlake](#) | [Edgewater](#) | [Lakeshore](#) | [Mad River](#) | [Mansfield](#) | [Perry](#) | [Richland](#) | [Sammis](#) | [Seneca](#) | [Stryker](#) | [W Lorain](#)

DISPLAYS: **BMPDFTS_3-4_9-4-8.html** View

Bruce Mansfield Plant
Digital Fuel Tracking System
PROD-BMP-PI I/O Summary of System Activity

Available EXL's

Total Archive Events	293691
Average Events per Point	932
Maximum Events per Point	8485
Minimum Events per Point	1
Total Points	315
Estimated Archive File Space (KB)	587
Total Inputs	202
Inputs < 100% Qual	8
Inputs < 90% Qual	0

Process Time	3/4/2002 9:05	1/Min/Day	1440
Start Time	*.1d	2/Min/Day	2880
End Time	*	3/Min/Day	4320
		4/Min/Day	5760
		5/Min/Day	7200
		6/Min/Day	8640

Total Outputs	113
Outputs < 100% Qual	32
Outputs < 90% Qual	16

DFTS Inputs		Percent Good	Archive Events
PITAG	Description		
MN FDCDSBK0 1S0205AI	SHUTTLE CAR 2 POSITION	100.00	8485
MN FDCDSBK0 2S0805AI	SHUTTLE CAR 8 POSITION	100.00	8456
MN FDCDSBK0 1S0105AI	SHUTTLE CAR 1 POSITION	100.00	8420
MN FDCDSBK0 3S4B05AI	SHUTTLE CAR 4B POSITION	100.00	8390
MN FDCDSBK0 2S0705AI	SHUTTLE CAR 7 POSITION	100.00	8353
MN FDCDSBK0 3S1B05AI	SHUTTLE CAR 1B POSITION	100.00	8350
MN FDCDSBK0 1S0305AI	SHUTTLE CAR 3 POSITION	100.00	8349
MN FDCDSBK0 3S3B05AI	SHUTTLE CAR 3B POSITION	100.00	8338
MN FDCDSBK0 3S2B05AI	SHUTTLE CAR 2B POSITION	100.00	8316
MN FDCDSBK0 1S0405AI	SHUTTLE CAR 4 POSITION	100.00	8255
MN FDCDSBK0 2S0605AI	SHUTTLE CAR 6 POSITION	100.00	8228
MN FDCDSBK0 2S0505AI	SHUTTLE CAR 5 POSITION	100.00	8209
MN FDCDSCHS 0T6001AI	BELT 60 COAL TONNAGE	100.00	6425
MN FDCDSCHS 0T2001AI	BELT 20 COAL TONNAGE	100.00	5593

DFTS Outputs		Percent Good	Archive Events
PITAG	Description		
MN 00DFTYRD Sum1920TPH	Flow Rate on 19+20	100.00	8124
MN 00DFTYRD FeederTPH2	Source Flow Rate-BARGE UNL	100.00	8028
MN 00DFTYRD BnkrLZ1TPH	Coal Flow Rate-Bnkr Load Z	100.00	8019
MN 00DFTYRD FeederTPH2OnLZ1	Flow Rate for LZ1-BARGE UN	100.00	7948
MN 00DFTYRD BnkrLZ2TPH	Coal Flow Rate-Bnkr Load Z	100.00	7731
MN 00DFTYRD FeederTPH2OnLZ2	Flow Rate for LZ2-BARGE UN	100.00	7666
MN 00DFTYRD FeederBlend2	Source Blending-BARGE UNLO	100.00	5877
MN 00DFTYRD FeederTPH3	Source Flow Rate-50R	100.00	5357
MN 00DFTYRD FeederTPH3OnLZ2	Flow Rate for LZ2-50R	100.00	5330
MN 00DFTYRD FeederTPH3OnLZ1	Flow Rate for LZ1-50R	100.00	5270
MN 00DFTYRD FeederTPH5OnLZ2	Flow Rate for LZ2-35/36 CR	100.00	3960
MN 00DFTYRD FeederTPH5OnLZ1	Flow Rate for LZ1-35/36 CR	100.00	3958
MN 00DFTYRD FeederTPH5	Source Flow Rate-35/36 CRU	100.00	3926
MN 00DFTYRD FeederBlend3	Source Blending-50R	100.00	3727

Local intranet

E-Note: Summary

- **Filters PI data deluge to events that need attention**
- **Simple user interface requiring minimal training (just need to know Excel)**
- **User administered**
- **Cost Reduction, Data Sharing, Decision Assistant**



E-Notification™ for OSI PI®

FirstEnergy®



*Enterprise Alert System and Automated
Reporting Applications at First Energy*

Presented By:

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Mike Santucci, ECG