



**TELEDYNE
MONITOR LABS**

A Teledyne Technologies Company



Regperfect®

Continuous Monitoring Data Acquisition System



Finally, a company that offers a cost effective solution for my data acquisition system requirements

Data management is vital to your company's bottom line and mission critical environmental compliance goals. Today's environmental professionals must learn to do more with less when faced with budget constraints, rising operating costs, and staff reductions. Teledyne Monitor Labs® (**TML**) helps environmental professionals around the world meet these challenges by offering RegPerfect®.

RegPerfect is a cost effective data acquisition system (DAS) for monitoring, recording and reporting emissions to demonstrate compliance with Federal, State and local requirements. The easy to use software application is the perfect tool for maintaining compliance with your air permit requirements.

This reliable server-client solution provides the real time visibility and connectivity for all your environmental and operational needs, particularly those related to the performance of your Continuous Emissions Monitoring (CEM) systems. RegPerfect minimizes operator involvement by calculating permitted parameters, verifying measurement system integrity, and implementing data substitution algorithms (when required) to provide certified data for reporting.



TML has over 50 years of experience designing, building, maintaining and integrating CEM Systems into your facility for environmental control and compliance. RegPerfect can be fully integrated into existing and new CEM System applications including in-situ, extractive, dilution extractive, opacity, particulate, and can also provide MACT parameter monitoring. For extensive data buffering and standard plant controller communication protocols, TML recommends interfacing instrumentation with C310, Allen Bradley or GE Programmable Logic

Controllers, and Data Loggers.

What About Regulation and Permit Changes

Over time, rules, regulations and permit language change. RegPerfect can be easily reconfigured to accommodate these changes. Most of the time, the configuration changes can be completed remotely from our factory, which saves travel time and cost. We offer no hassle support and reasonable pricing for all necessary changes to your DAS. Simply contact us and we will evaluate the new requirements, notify you what configuration revisions are needed, implement the changes, and then verify with you that the revised DAS meets your expectations. Additionally, standard open protocols are used to aid facilities in corporate systems integration.

- * Reliable solution provides real-time visibility and connectivity for environmental and operational needs
- * Secure system provides access and authorization control to ensure NERC / FERC security requirements
- * 24 x 7 software support available providing rapid assessment, diagnosis and conclusion
- * Annual user group meeting to listen to your needs, showcase software/CEMS, regulatory updates and training

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www.teledyne-ml.com

EXPERIENCE YOU CAN RELY ON

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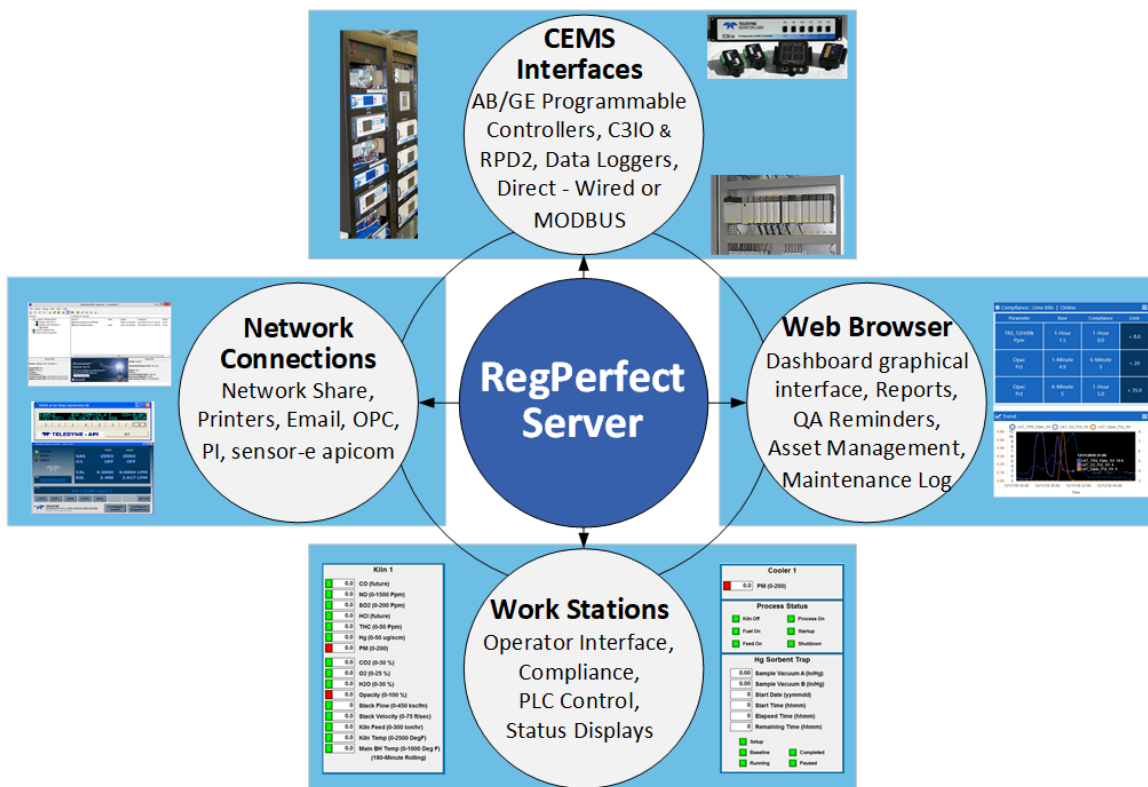
RegPerfect Architecture

RegPerfect takes full advantage of the stability, security and features of Windows® Server, SQL Server and the Windows Integrated Security model. The database is fully compliant with the latest security and connectivity standards, allowing for secure and easy integration with popular Microsoft Office programs and various environmental database tracking software packages including OPC and PI Servers. The user is capable of database evaluating, editing and reporting through RegPerfect's application user interfaces.

Emissions data is valuable to a facility's environmental compliance and operations, so RegPerfect employs a role based security model that restricts and grants access to certain data and features defined by a given login account.

Network Connectivity

RegPerfect is designed with a server-client architecture. A RegPerfect server can be connected to the network via standard Ethernet protocol thus allowing RegPerfect or browser client software to run from a network connected PC.



Typical Server Hardware

Teledyne Monitor Labs offers flexibility that our competitors shy away from. Whether you want to buy a server and workstation from us or supply your own because of your facility IT standardization, TML will gladly work with you. Customer virtual servers are supported.

The servers that we supply come with four (4) RAID I configured 300 GB hard drives, DVD/CD RW, 16 GB RAM, 2.x GHZ six core processor, USB modem if needed, Ethernet card, and a 500 GB USB external hard drive for optional data backups when a network drive is not accessible.





Software and Regulatory Support

Teledyne Monitor Labs' support plans are designed for flexibility, allowing you to choose a support level that fits the needs of your facility. We offer a complete range of service plans from basic maintenance programs to comprehensive support plans that ensure your system stays current with the latest regulations and technology.

Gem Level Plans provide comprehensive hardware and software support services including free upgrades of RegPerfect product releases throughout the term of the Software Support Plan. TML offers 24 x 7 technical phone support providing you rapid assessment, diagnosis and repair of your CEMS system.

TML has a highly trained staff of professionals ready to tackle all your regulatory needs and it's just a phone call away. Our staff stays current with all regulations including new and proposed EPA and State rule makings.

TML Hears Our Customers Loud and Clear

TML highly values the opinions and recommendations of our customers. Consequently, each year TML offers **no charge** RegPerfect User Group Meetings to listen to your needs, showcase software changes, provide regulatory updates and worthwhile training. This is your time dedicated to address your needs and concerns. We listen to you to determine what we can do better to serve you. This is also a great time to meet other industry people, share compliance strategies, and meet new and old friends in a relaxed focused atmosphere.

RegPerfect Training Course

Once per quarter, a two/three day factory-training course is held at TML's training facility in Englewood, CO. The class provides the student with an ideal environment in which to learn RegPerfect so they can use it as an effective tool for compliance with Federal and State CEMS Air Quality Regulations including 40CFR60, 40CFR63, 40CFR75 and 40CFR98. The classroom is set up and organized to encourage interaction between the student and instructor. Specific exercises are performed which provide the student with real work type problem solving and solutions for mission critical environmental compliance.



Teledyne Web Support

www.teledyne-ml.com allows RegPerfect users access to tech notes, regulatory updates, patch information, and much more.

Contact the TML Sales Team to ask about our DAS replacement program.

We offer a full regulatory, hardware and software support team to help you maintain environmental compliance.

Teledyne Monitor Labs, Inc. reserves the right to make changes in construction, design, specification, and/or pricing without prior notice.



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ISO 9001 Certified Quality
Management System



RegPerfect®

Continuous Monitoring Data Acquisition System



Spotlight/Dashboards

- Configurable display that illustrates measured and calculated data
- Asset management for calibration gas bottle inventory
- QA Test reminders
- Tool used to assist in maintaining compliance with operating permit requirements
- Direct interface with communication device such as PLC and C3io for CEMS maintenance
- Configurable alarm application that notifies operator of compliance and system issues (email capable)
- Optional CEMS maintenance display to monitor CEMS performance and troubleshooting
- Assign reason/action codes for report submittals

Teledyne Power CEMS Maintenance Display

Set at 2 LPM, Set at 3 LPM, Vacuum Switch Set at 37 Hg, Set at 86 psi, Instrument Air, Purge

Start Time	End Time	Category	ACK Time	ACK By	Message
06/08/05 18:00	06/09/05 04:00	MissingData			U1_CasFlow_100scrp_L14 Missing Data
06/14/05 17:00	06/14/05 22:00	MissingData			U1_CasFlow_100scrp_L14 Missing Data
06/02/05 09:00	06/02/05 09:00	MissingData			U1_CasFlow_100scrp_L14 Missing Data
06/03/05 05:00	06/03/05 07:00	MissingData			U1_CasFlow_100scrp_L14 Missing Data
06/03/05 09:00	06/03/05 10:00	MissingData			U1_CasFlow_100scrp_L14 Missing Data
06/13/05 12:00	06/13/05 13:00	MissingData			U1_CasFlow_100scrp_L14 Missing Data
06/16/05 01:00		Test			U1_CasFlow_100scrp_L14 Missing Data
06/16/05 01:00		ADD New Action			U1_CasFlow_100scrp_L14 Missing Data
06/22/05 09:00	06/22/05 09:00	PCM module fail/reset			U1_CasFlow_100scrp_L14 Missing Data
06/22/05 09:00	06/22/05 09:00	Unpowered exhaust vent system			U1_CasFlow_100scrp_L14 Missing Data
06/22/05 09:00	06/22/05 09:00	DIAGN Software reactivation			U1_CasFlow_100scrp_L14 Missing Data
06/03/05 04:00	06/03/05 04:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/03/05 06:00	06/03/05 06:00	Troubleshooting			U1_CasFlow_100scrp_L14 Missing Data
06/03/05 07:00	06/03/05 07:00	Referred Problem to Technical support			U1_CasFlow_100scrp_L14 Missing Data
06/03/05 08:00	06/03/05 08:00	Scheduled			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 08:00	06/07/05 08:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 11:00	06/07/05 11:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 13:00	06/07/05 13:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 14:00	06/07/05 14:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 15:00	06/07/05 15:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 16:00	06/07/05 16:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 17:00	06/07/05 17:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 18:00	06/07/05 18:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 19:00	06/07/05 19:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 20:00	06/07/05 20:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 21:00	06/07/05 21:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 22:00	06/07/05 22:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data
06/07/05 23:00	06/07/05 23:00	CEM Failure			U1_CasFlow_100scrp_L14 Missing Data

Alarm Profiles

Profile Name: Default | Set Active

Server Name: EGWSALT0

Alarm Profiles control how alarms are presented on the alarm list. You may have as many profiles as you wish, but only one may be 'Active' at a time. To create a new profile, enter a new profile name below and click the [New] button. To view/edit an existing profile, choose the profile name from the drop-down list. To make the profile you are viewing the active profile, click the [Set Active] button (a checked box to the right of the profile name indicates the active profile).

Filters (Control which Alarms are displayed)

Time Period and Site: Alarms Within Last [Quarterly] | [Quarterly]

Sort (Control the order in which Alarms are listed): Ascending / Descending

Reason/Action

Acknowledged at: [06/30/05 14:27] by [T.M. Yabott]

Assign Reason/Action:

Type	Category	Text
Reason	CEM Failure	Monitor equipment malfunctions
Action	CEM Failure	Troubleshooting for causes of failure

Hint: Select Reason Code first and then select (optional) Action Comment.

To delete a reason/action, select it by clicking the record selector at the leftmost of each row and click Delete from the Context menu or press the Delete key.

RegPerfect Dashboard

Available Dashboards: dashboard 1

Alarms

- U2 6-Minute Opacity > 20%: Excess Emission alarm occurred at 14:00
- U1 Particulate Matter Bad Status: Excess alarm occurred from 14:00 to 14:00
- U2 PM Bad Status: Other alarm occurring from 14:00
- Server / Controller clock requires manual reset: Technology alarm occurred at 14:00
- Alert - 0h maintenance succeeded: Equipment alarm occurred at 14:00
- Alert - 0h maintenance due on 0hMaintenance: Equipment alarm occurred at 14:00
- U2 6-Minute Opacity > 20%: Excess Emission alarm occurred at 0:00 to 0:00
- U1 Particulate Matter Bad Status: Excess alarm occurred from 0:00 to 0:00
- Server / Controller clock requires manual reset: Technology alarm occurred at 0:00

QA Tests

Test Name	Start Time	End Time	Status
U1 Calibration	11:30	11:30	Pass
U2 Calibration	11:30	11:30	Pass
U1 Flow High P P50	11:30	11:30	Pass
U2 Flow High P P50	11:30	11:30	Pass
U1 Flow High P P50	11:30	11:30	Pass
U2 Flow High P P50	11:30	11:30	Pass
U1 Flow High P P50	11:30	11:30	Pass
U2 Flow High P P50	11:30	11:30	Pass

Status

U1 OpacOn: U1 StackOn

U1 StackOn: U1 StackOn

U1 TF: 1M

StackOn: True

Multi-value

Unit	Pct	1H	CO2	Flow
U1	0	0	0	0

Reports

- Configured to comply with your operating permit recordkeeping and reporting requirements
- Create report groups to evaluate large amounts of data quickly and efficiently
- Reports can be directed to any network printer or to an email address if DAS is connected to a mail server
- Browser based application that can be accessed through any PC with a browser
- Reports can be generated on demand or configured to run automatically—timed or event based

RegPerfect Reports - Reports

Monday, February 12, 2007 | Server: EGWSALT33 | User: RABOTT | Group: RP_ADMIN

Reports | My Reports | Create Reports | Delete Reports | Report Groups | Report Schedules

View: Monitoring Site then Category

Save Report Group

Report Name	Monitoring Site	Report Category
U2_OpacityDailySummary	Unit 2	Other Summary

Master Reports

- 12 Month Rolling Summary Report
- 12 Month Rolling Summary Report
- Daily Alarm Report
- Daily Call Results
- Daily Summary With Excess Emission
- Data Status Report
- DRF-1
- EDS CEMS Summary
- Incident Value
- Invalid Data
- LbPerEvent
- Monthly Summary by Day
- Opacity Daily Summary
- Parameter Listing
- Periodic Summary
- Quarterly Emissions Summary
- Relative Emissions
- Subpart Dabb

12 Month Rolling Summary Report

Description: Use this report to show monthly rolling sum or average for up to six parameters.

Report Parameters Overview

Name	Default Value
HourlyOrDailyTagName1	U1_S02_Ppm_1H
HourlyOrDailyTagName2	Null
HourlyOrDailyTagName3	Null
HourlyOrDailyTagName4	Null
HourlyOrDailyTagName5	Null
HourlyOrDailyTagName6	Null

EDS/CEMS Summary Report

For Unit 2 Opacity

From: 11/01/2007 00:00 To: 11/30/2007 23:59 Facility Name: Teledyne Power
 Location: Englewood CO 80112
 Description: 750 new coal Facility

Generated: 07/29/2008 11:04

Exclusion Value: 27.4
 Monitor Manufacturer and Model No.: TELEPHONE MONITOR LABS INC LENGTHMAN 560
 Date of Latest CEMS certification or Audit: 01/02/2006 00:00
 Operating time for EDS: 43,200.00 HMinute(s)
 Operating time for CEMS: 43,200.00 HMinute(s)

Emission Data Summary		EMS Performance Summary	
1. Duration of excess violation in reporting period due to:		1. Ops violation in reporting period due to:	
a. Startups/shutdowns	18	a. Monitor equipment malfunction	0
b. Control Equipment failures	12	b. Non-monitor equipment malfunction	0
c. Process Problems	0	c. Quality Assurance Calibration	96
d. Other reason causes	0	d. Other reason causes	0
e. Unknown Causes	32	e. Unknown Causes	128
2. upset conditions	0	f. Total OMS downtime	234
3. Total Duration (Excess violation - excursions - upset conditions)	36	g. Total OMS as a percentage of operating time	0.54
4. Time in violation as a percentage of operating time	0.08	h. Total availability as a percentage of operating time	99.46
5. Time in compliance as a percentage of operating time	99.92		



RegPerfect

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Editor

- Review, evaluate, edit, block edit, and recalculate data for assessing compliance
- Quick date select, filter, and create data groups to quickly and efficiently evaluate specific data
- View data in different formats for diagnosing problems
- Edit, sort, and filter system constants quickly and efficiently
- Edit calibration reference values and reassess test results for daily and quarterly quality assurance
- Generate reports for instrument daily and quarterly calibration including CGA/Linearity/RATA

Sample Editor Spreadsheet

Date	Time	CO		CO2		Load		MassFlow		Nox		SO2	
		Value	Invalid	Value	Invalid	Value	Invalid	Value	Invalid	Value	Invalid	Value	Invalid
12/30/06	00:00	81.1	F	8.0	F	802.4	F	8.5	F	68.4	F	68.5	F
12/30/06	00:01	81.1	F	11.5	F	802.5	F	8.5	F	68.5	F	75.7	F
12/30/06	00:02	81.1	F	11.5	F	802.5	F	8.5	F	68.5	F	75.7	F
12/30/06	00:03	81.1	F	11.5	F	802.5	F	8.5	F	68.5	F	75.7	F
12/30/06	00:04	81.1	F	11.5	F	802.5	F	8.5	F	68.5	F	75.7	F
12/30/06	00:05	81.1	F	11.5	F	802.5	F	8.5	F	68.5	F	75.7	F
12/30/06	00:06	81.1	F	11.4	F	802.2	F	8.5	F	68.5	F	75.7	F
12/30/06	00:07	81.1	F	11.4	F	802.2	F	8.5	F	68.5	F	75.7	F
12/30/06	00:08	81.1	F	11.3	F	796.1	F	8.5	F	68.5	F	75.7	F
12/30/06	00:09	81.1	F	11.3	F	796.0	F	8.5	F	68.5	F	75.7	F
12/30/06	00:10	81.1	F	11.3	F	792.4	F	8.5	F	68.5	F	75.7	F
12/30/06	00:11	81.1	F	11.3	F	776.7	F	8.5	F	68.5	F	75.7	F
12/30/06	00:12	81.1	F	11.3	F	770.0	F	8.5	F	68.5	F	75.7	F
12/30/06	00:13	81.1	F	11.3	F	764.3	F	8.5	F	68.5	F	75.7	F
12/30/06	00:14	81.1	F	11.3	F	752.4	F	8.5	F	68.5	F	75.7	F
12/30/06	00:15	81.1	F	11.3	F	752.8	F	8.5	F	68.5	F	75.7	F
12/30/06	00:16	81.1	F	11.3	F	750.0	F	8.5	F	68.5	F	75.7	F
12/30/06	00:17	81.1	F	11.3	F	742.1	F	8.5	F	68.5	F	75.7	F
12/30/06	00:18	81.1	F	11.3	F	744.9	F	8.5	F	68.5	F	75.7	F
12/30/06	00:19	81.1	F	11.3	F	732.2	F	8.5	F	68.5	F	75.7	F

Editor: Main Window

Select Tag(s): select up to 6 tags to view/edit.

Select Edit Group: select one group of tags from the list and click [Edit Sample] to view/edit. Dbl-click a group to view/edit its member tags.

Unit 1 RB

Mode: Spreadsheet View Status Flags View Filter Samples

System Status Flags (cannot be manually edited): Sample Invalid, Edited Value, Edited Status, Edited Source Code

CEM Flags: Missing, Out Of Service, Failed Test, Too Few Samples, In Purge, Exceeds Scale, Shot Sample, Non Fatal Fault, Backup Monitor, Pattern A, Pattern B

Calibration Flags: In Calibration, Out of Range, Not Quality Assured, CCM Manual, First Out of Cal

Interference Test Flags: Interference Test, Interference Test Failed, Interference Test Not QA, Interference

Definable Flags: Status 38, Status 39, Status 40, Status 41, Status 42, Status 43, Status 44, Status 45, Status 46, Status 47

Category: CEM Failure, Reason: Reason, Update List, Remove From List

Editor: Main Window

Part 75 Linearity Tests

To view/edit test detail, double click the desired test, or single click to highlight the test and click [New/Edit]. To add a new linearity test, click [Add New]. To run a report, click to select the desired tests (use Shift-Click or Ctrl-Click for multiples), and click [Report]. To filter the list of tests, use the options at bottom left.

Qtr	Performed	Unit/Stack	Component	System	Date	Test	Instrument	Scale	Qtr Reported	Result
Qtr 1 - 2007	UI	MOX(119)	MOX(107)	CO2(1007)	2/23/2007	1	UI_MOX_P_Instrument	H	Qtr 1 - 2007	Pass
Qtr 1 - 2007	UI	CO2(120)	CO2(108)	CO2(108)	2/23/2007	1	UI_CO2_P_Instrument	H	Qtr 1 - 2007	Pass
Qtr 1 - 2007	UI	SO2(216)	SO2(205)	SO2(109)	2/23/2007	1	UI_SO2_P_Instrument	L	Qtr 1 - 2007	Pass
Qtr 1 - 2007	UI	MOX(217)	MOX(206)	MOX(206)	2/23/2007	1	UI_MOX_P_Instrument	H	Qtr 1 - 2007	Pass
Qtr 1 - 2007	UI	CO2(218)	CO2(206)	CO2(206)	2/23/2007	1	UI_CO2_P_Instrument	H	Qtr 1 - 2007	Pass
Qtr 1 - 2007	UI	CO2(218)	CO2(207)	CO2(207)	2/23/2007	1	UI_CO2_P_Instrument	H	Qtr 1 - 2007	Pass
Qtr 4 - 2006	UI	MOX(119)	MOX(107)	MOX(107)	11/14/2006	1	UI_MOX_P_Instrument	H	Qtr 4 - 2006	Pass
Qtr 4 - 2006	UI	CO2(120)	CO2(108)	CO2(108)	11/14/2006	1	UI_CO2_P_Instrument	H	Qtr 4 - 2006	Pass
Qtr 4 - 2006	UI	SO2(216)	SO2(205)	SO2(109)	11/14/2006	1	UI_SO2_P_Instrument	L	Qtr 4 - 2006	Pass
Qtr 4 - 2006	UI	MOX(217)	MOX(206)	MOX(206)	11/14/2006	1	UI_MOX_P_Instrument	H	Qtr 4 - 2006	Pass
Qtr 4 - 2006	UI	CO2(218)	CO2(206)	CO2(206)	11/14/2006	1	UI_CO2_P_Instrument	H	Qtr 4 - 2006	Pass
Qtr 4 - 2006	UI	CO2(218)	CO2(207)	CO2(207)	11/14/2006	1	UI_CO2_P_Instrument	H	Qtr 4 - 2006	Pass

EDR Generator/Setup

- Review emission and calibration data and generate electronic data reports for 40CFR75 recordkeeping and reporting
- Load analysis wizard for RATA determinations
- Span and range evaluation for CEMS compliance
- Monitoring plan information stored for reporting
- QA/QC records archived
- Sample queries for data analysis

Span and Range Evaluation Test Report

Unit ID: 001
Parameter: NOx
Component ID: A02
Tag Name: US NOx Stack Ppm 1H
Full Scale: 100
Interval: 01:01:00 through 12:01:00 23:00

Test Result: PASS

92.6 % of readings are between 20 % and 80 % of full scale
6.4 % of readings are < 20 % of full scale
0 % of readings are > 80 % of full scale

EDR Generator

Facility Name: LA CYGNE STATION | Data Lock Date: 12/16/2006 0:00 | Change Lock Date

EDR Description: Unit 1 | Go To EDR

Run EDR | Review Data | QA/QC Records | Sample Query

Review Period: From 01/01/2007 0:00 to 01/31/2007 23:59

Click to select the desired Unit/Stack/Pipe, then use the buttons to review its data:

Unit/Stack/Pipe	Data Review Procedure
1	Step 1: Process Data Find and fix invalid or incorrect process samples (load, unit operating, operating time)
	Step 2: Calibrations Review calibration results and re-evaluate calibrations and grace periods if needed
	Step 3: Emissions Data Review emissions data and recalculate if necessary
	Step 4: Lock Data Protect "finished" data from accidental modifications (edits, recalculations)

Load Analysis Wizard

Unit/Stack/Pipe ID: 001

Step 2 of 2) Review and save Monitoring Load record (optionally, you may select a 2nd designated normal load)

Historical Load Usage By Level

Level	Operating Hours	Percent
Low Level	15	0.3
Mid Level	23	0.4
High Level	5242	99.3

Total Operating Hours: 5280 (excluding hours in which Load < Minimum Safe or > Maximum)

Monitoring Load Record

Analysis Date: 08/24/06
Begin Date/Hour: 08/24/06 8:00
End Date/Hour: [blank]
Maximum Load: 110 MW

Normal Level: H
Second Level: M
Second Normal Indicator: [checkbox]

Buttons: Cancel, < Back, Next >, Done