



CEMLink™ EV

MACT Compliance Solution

Product Primer



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CEMLink™ EV System – Overview

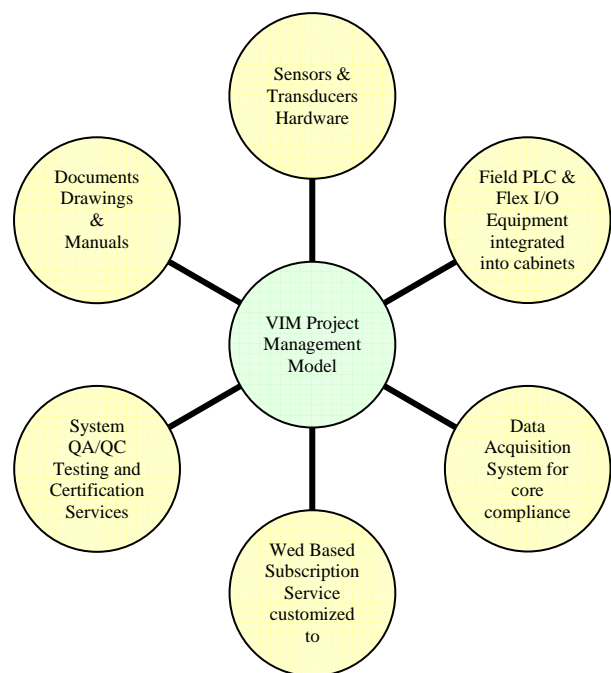
Industrial Facilities are required to comply with the emissions monitoring and reporting requirements as defined under NESHAPS 40CFR Part 63, the associated process specific Subparts (MACT Rules) and the site specific Title V air permit. In order to fully meet the requirements as defined by the MACT Rule and the Title V Permit, each facility must develop a process-specific compliance plan. Although there are no set rules as on how best to meet compliance, the affected facility must develop and implement measurable methods of compliance. The overall goal is find an approach that is cost effective, easy to use and low impact on plant personnel.

In most cases the overall compliance plan calls for the installation, commissioning and certification of an integrated, air compliance solution. In general the compliance measurements must be able to demonstrate compliance by logging events and performance deviations on a continuous basis. Periodic reports may also be required as part of the demonstration of compliance. The integrated air compliance solution must include but is not limited to:

- a. Continuous monitoring of the affected production line process points.
- b. Non-continuous and periodic monitoring of the affected production line process points.
- c. Facilitates hand entry of measurement and inspection data.
- d. Baseline source testing in accordance to the MACT requirements.
- e. Baseline source testing in accordance to Title V air permit requirements.
- f. Data management, storage and reporting of all logged data as it applies to the overall air compliance model.
- g. SSM Plans, task managers, system alerts, deviation notifications and event logs as they apply to the air compliance model.
- h. Specification, procurement, installation and testing of all equipment needed to meet the air compliance requirements.
- i. Coordination and management of all resources required to meet compliance.
- j. Field services required to complete all installation and testing of the equipment.
- k. Certification testing and associated test reports required to meet the air compliance model.
- l. Training on the day to day operation, use and management of the integrated solution.

CEMLink™ EV is a broadbased MACT and Title V Compliance software product that bridges the gap between a site-specific SSM Plan and the day to day tools needed to make it work. It is configured to site-specific needs and custom fit to make the compliance workflow efficient and easy to use. This state of the art software solution can handle automatic as well as manual data entries on an on demand task driven basis. It provides all the reports needed to meet your compliance obligations in a fully integrated compliance management system.

VIM Technologies, Inc. offers an integrated, total compliance solution in accordance to the site specific requirements which is designed, built, and managed under our project management model. Every aspect of the SSM Implementation Program is satisfied through this project management system, as illustrated in the diagram to the right.



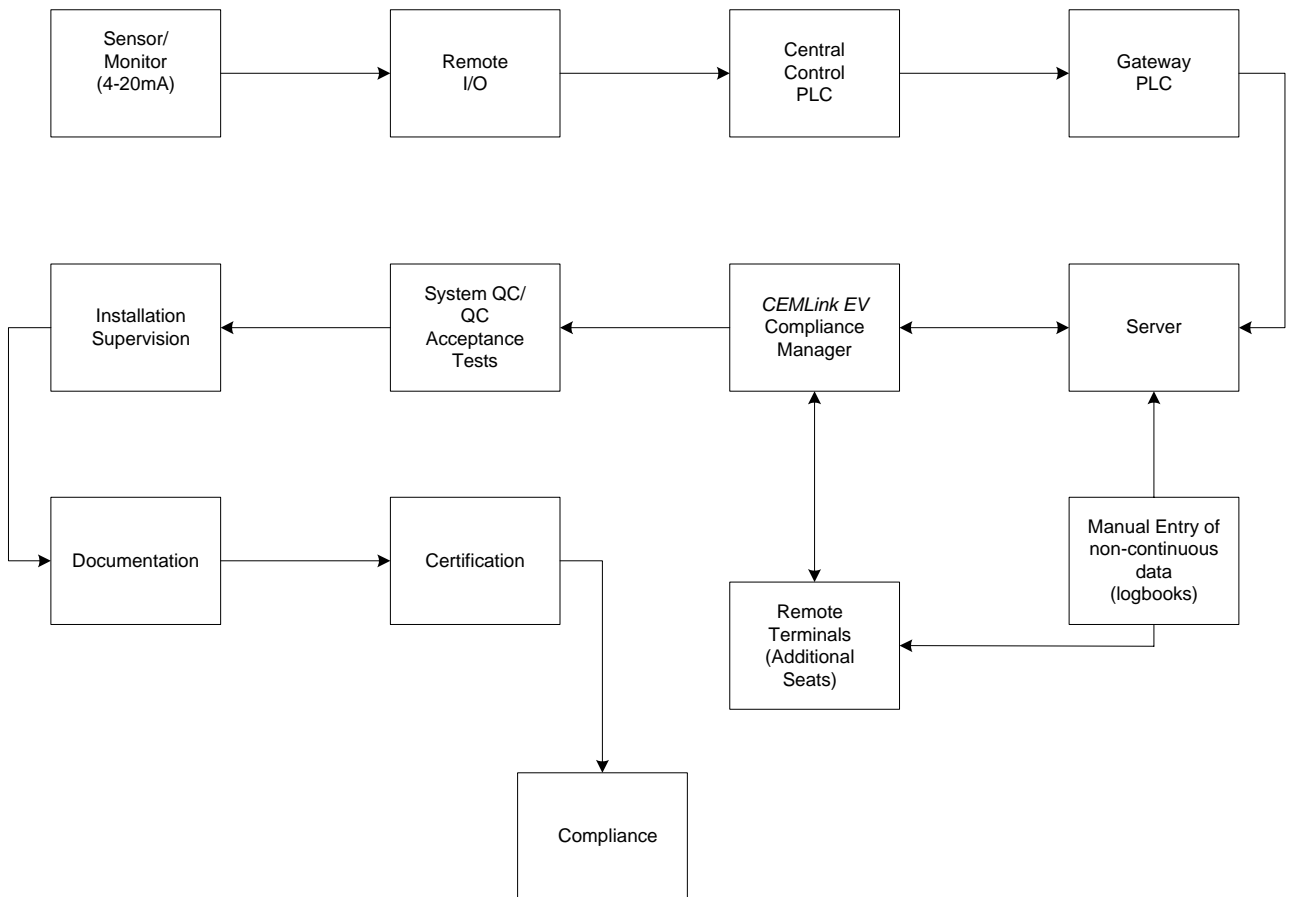
CEMLink™ EV System – Essential Elements

VIM Technologies, Inc. has over 15 years of total solution air compliance experience to apply to any MACT and Title V Monitoring System. The proposed solution will provide the end user with a comprehensive, integrated MACT and Title V Compliance System package complete with the following essential elements.

1. Field devices and monitoring equipment (monitors, sensors, transducers, etc.).
2. PLC control equipment and Remote I/O devices.
3. Cabinets and enclosures, as appropriate, for PLC and remote I/O blocks.
4. Centralized Compliance System PC Server.
5. *CEMLink™ EV* MACT/Title V Data Acquisition System.
6. Browser-based *CEMLink EV* Compliance Manager.
7. System QA/QC and Acceptance Test Services.
8. Installation supervision and training.
9. System Documentation and drawings.
10. System Certification and Testing Services Supervision.

In addition to these key elements, overall project management will be under the direction of VIM Technologies, Inc.

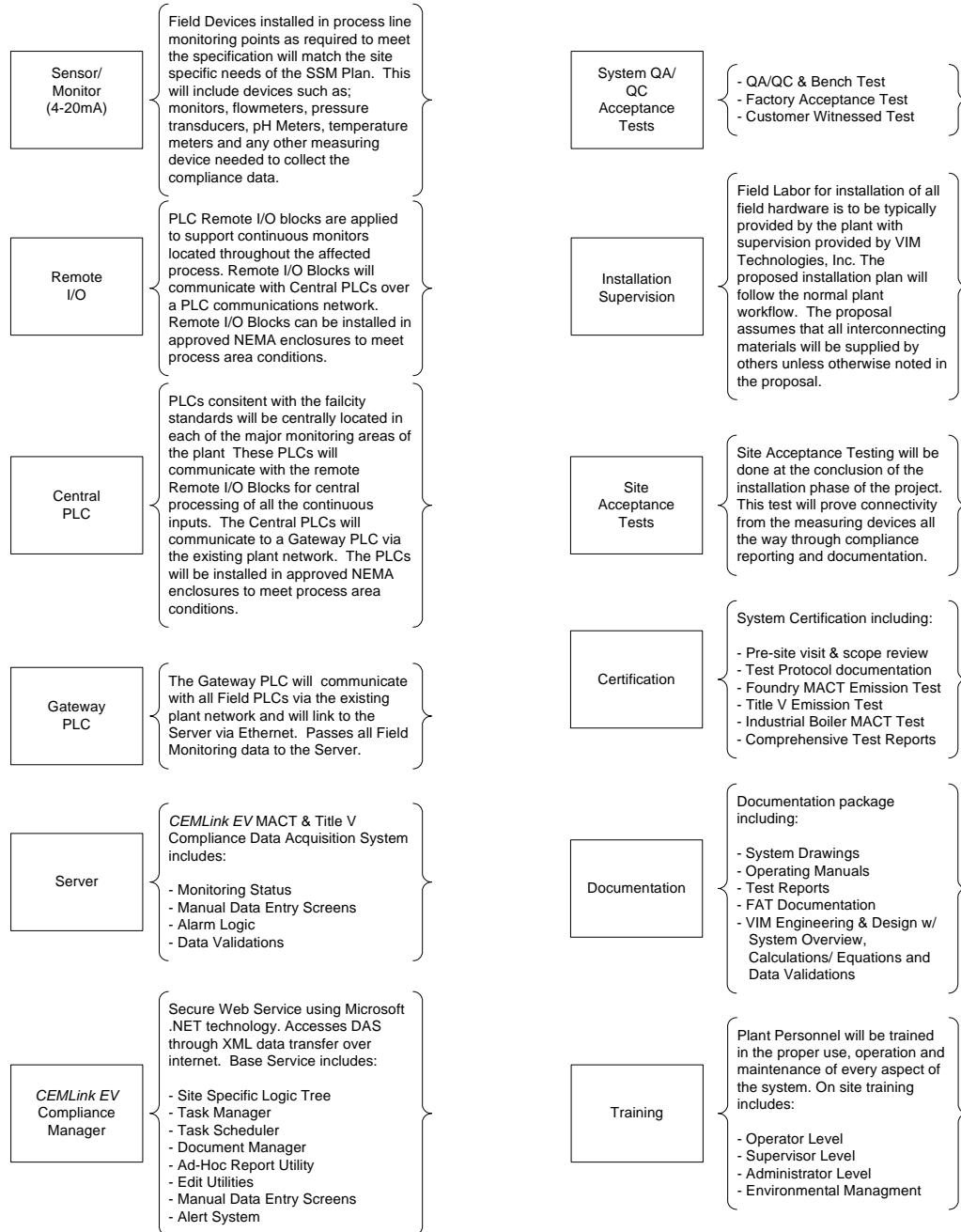
Essential Elements Overview



CEMLink™ EV System – Essential Elements (continued)

Each integrated solution provided by VIM Technologies, Inc. begins with an engineering site walk down and scope of supply review. The proposed equipment and services proposed in any initial MACT solution are to be considered conditional until the completion of the mandatory site walk down. The role of each essential element of the project is as follows:

Role of Essential Elements



CEMLink™ EV System – Software Components

The software needed to support the proposed solution is broken down into two major components; *CEMLink™ EV Data Server* and *CEMLink™ EV Compliance Manager*. The *CEMLink™ EV Data Server* software resides on the Compliance Server PC and is responsible for logging of continuous real time data (from the field monitors), building of event logs and manages data validations, reductions and averages.

The *CEMLink™ EV Compliance Manager System* is a 100% web-based, on demand, hosted solution built on a Microsoft .NET platform. It is a subscription based service that works in conjunction with the *CEMLink™ EV Data Server* component to provide an integrated total compliance DAS solution.

The *CEMLink™ EV Compliance Manager* is accessed from the DAS server through a web browser. The base proposal includes the subscription service for one access point or “seat” for the first year of operation. Additional seats may be added to any PC as long as it has Internet access. The advantage of expanding the subscription service to more seats is in providing ready access to critical data to multiple personnel at any location, local to or remote from the plant.

All communications to and from the *CEMLink™ EV Compliance Manager System* are transmitted via 128-bit encrypted SSL connections. The *CEMLink™ EV Compliance Manager System* is hosted by AT&T. To ensure 24/7 access to the *CEMLink™ EV Data Server* data, the system has the following attributes:

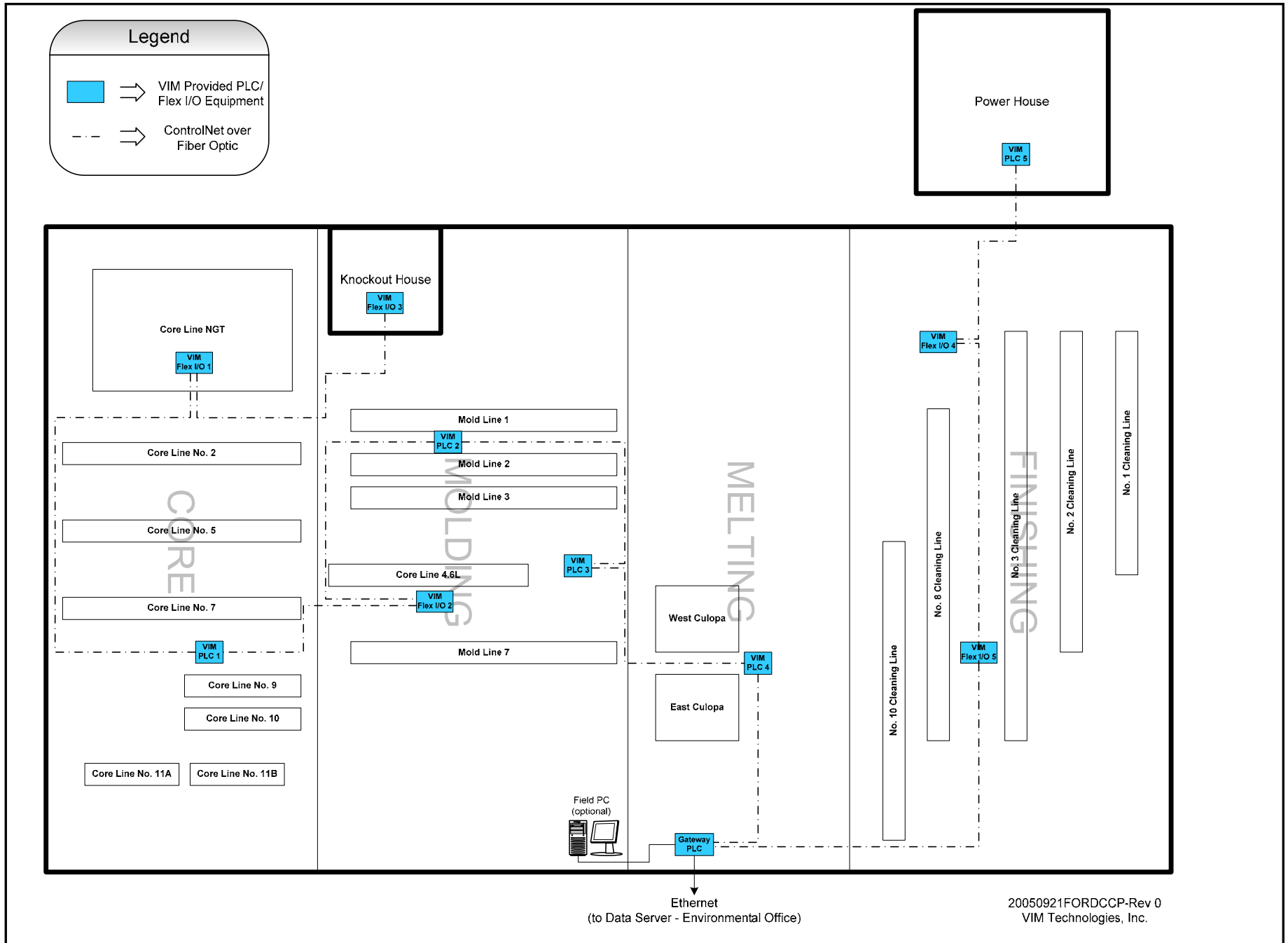
- Dynamic, redundant Internet access paths
- Complete infrastructure redundancy
- Web server farms to balance load
- Dry fire suppression systems to minimize systems damage in the event of a fire
- Encrypted communications to ensure safety of data and information
- Regular testing of systems for vulnerabilities
- All production databases backed up on hourly intervals and transaction logs on the half hour
- All active content including document uploading is scanned for viruses
- User access and authentication via unique username and password
- Password policy rules configurable for each customer
- Offsite storage with configurable retention periods to meet application specific needs

CEMLink™ EV System – Workflow

The *CEMLink™ EV* Compliance Manager System will be the day to day compliance interface for the environmental manager. Once logged into the browser, the end user has access to the MACT and Title V Compliance Tree. This Compliance Tree provides access to all the critical workflow elements of the system, such as the Task Manager, Task Scheduler, Message Center, Document Manager, Alerts, Ad-Hoc Report Manager, SSM Plans, Corrective Action Plans, Edit Utility and Data Archive Manager and is the day to day compliance portal for the plant.

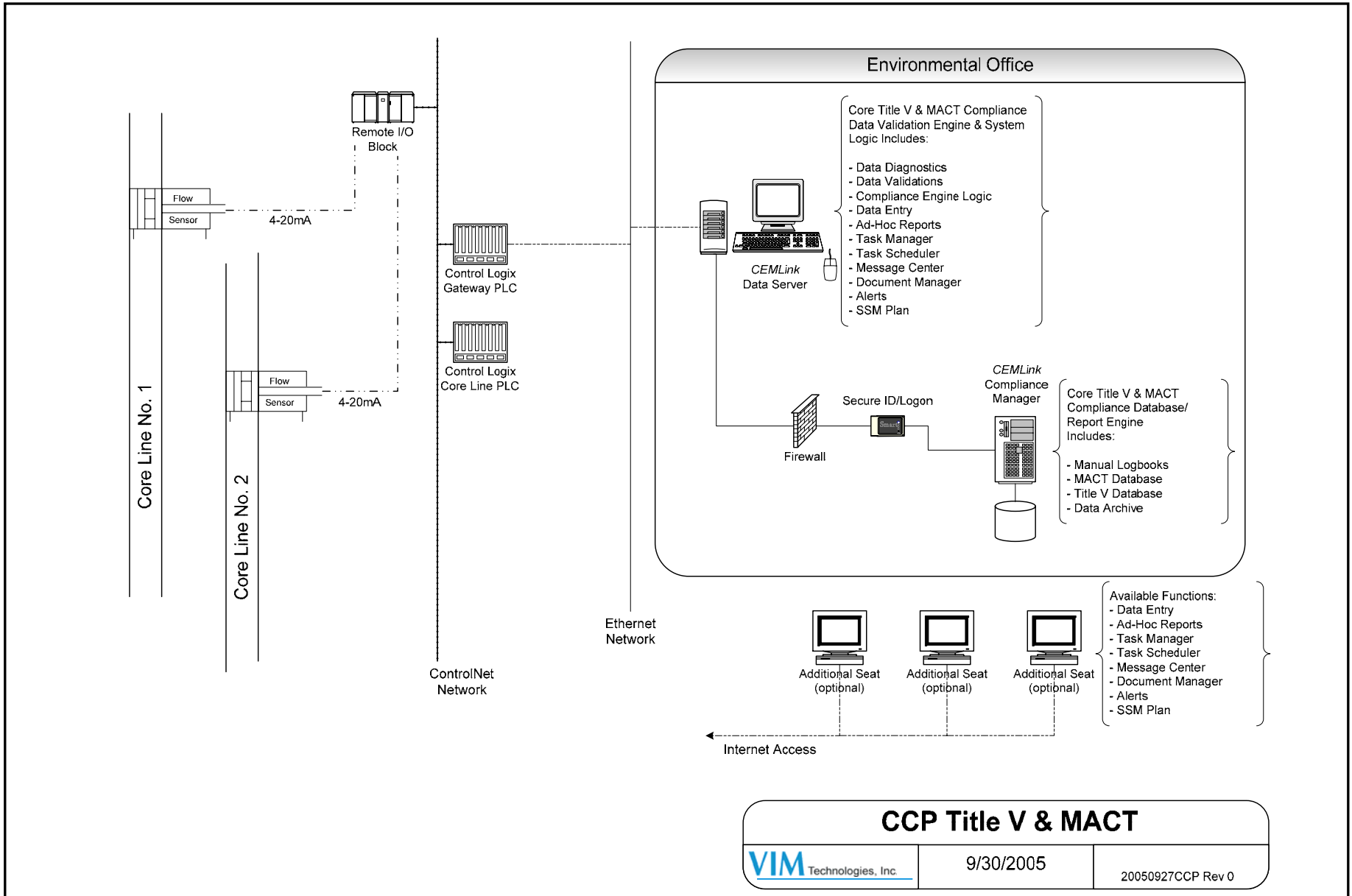
Continuous compliance data is fed to the *CEMLink™ EV* Compliance Manager continuously and automatically by the *CEMLink™ EV* Data Server. The interface for all manually entered, non-continuous compliance data is done through the *CEMLink* Compliance Manager System. The Task Manager will alert the environmental manager when and where a reading has to be taken and lays out corrective action plans and handles periodic tasks in an easy to use, efficient manner. The proposed system also provides access to logsheets that may be used to collect non-continuous compliance data from the field. Required non-continuous, data will be manually entered into the system and stored in the database for future use and reporting. As an option, the *CEMLink™ EV* Compliance Manager System can support hand-held PDA based logbooks which would be used in place of the handwritten, logsheets.

CEMLink™ EV System – Sample System Schematic (Casting Plant MACT Solution)



PLC Equipment and Remote I/O Layout (sample)

CEMLink™ EV System – Sample System Schematic (Casting Plant MACT Solution)



CCP Title V & MACT		
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MACT/Title V System Overview

CEMLink™ EV System – Screen Shots

Task Management

The screenshot displays the Enviaance VIM Technologies web application interface. The browser window title is "Enviaance - VIM Technologies - Microsoft Internet Explorer". The address bar shows the URL "https://go.enviaance.com/MainForm.aspx". The application header includes the VIM Technologies logo and navigation links for Profile, Online Help, and Logout. A secondary navigation bar contains buttons for Desktop, Calendar, Message Center, Task Manager (active), Template Manager, Material Activity Manager, and Admin/Security Manager.

The left sidebar, titled "System Models", shows a tree view under "VIM Technologies (Home)". The tree includes categories like Requirements, Foundry, Cupolas, Molding, Paper Mill, Citations, Documents, and Reports, each with a count in brackets. The "Foundry" category is expanded to show sub-items like Boiler House, Core Lines, Cupolas, Dump Station, Hot Blast, Molding Basement, Refuse Pan Conveyors, Molding Line, Casting Hook-Ups, Casting Shakeout, Holding Furnaces, Iron Pouring, Paint Spray Booth, Unhook Station, and Plant Roadway and Parking Areas.

The main content area is titled "Task Manager" and features a search bar and a table of search results. The table has the following columns: Select, Type, Name, Task Due, Status Change Date, Comments, and Status. The search results are as follows:

Select	Type	Name	Task Due	Status Change Date	Comments	Status
<input type="checkbox"/>	Shield	Closed-Vent System 30-day Visual Inspection	12/22/2006 3:00 PM	12/22/2006 10:00 AM		0%
<input type="checkbox"/>	Shield	Enclosure Opening 30-day Visual Inspection	1/1/2007 10:00 AM	12/22/2006 10:00 AM		0%
<input type="checkbox"/>	Shield	Closed-Vent System Annual Positive Pressure Test	1/1/2007 2:30 PM	12/22/2006 10:00 AM		80%
<input type="checkbox"/>	Shield	Pos Pres Closed-Vent Sys Annual Neg Pres Test	5/10/2007 3:00 PM	12/22/2006 10:00 AM		0%

At the bottom of the table, there are "Page: 1 of 1" and "Results per Page: 10" indicators, along with "Save" and "Clear" buttons.

CEMLink™ EV System – Screen Shots

Continuous and Manual Data Collection

The screenshot displays the VIM Technologies web application interface within a Microsoft Internet Explorer browser window. The address bar shows the URL: <https://go.enviance.com/MainForm.aspx>. The application header includes the VIM Technologies logo and navigation tabs for Desktop, Calendar, Message Center, Task Manager, Template Manager, Material Activity Manager, and Admin/Security Manager.

The main content area is divided into two sections:

- System Models:** A tree view on the left showing a hierarchy of models. The selected path is: VIM Technologies (Home) > Requirements [2] > Foundry_1 [11] > Core Lines [1] > Core_Line_5 [9]. Other visible models include Cupolas [1], Molding Basemant [1], Molding_Line_1 [4], and Paper_Mill_1 [7].
- Applicable Requirements:** A table on the right displaying requirements for the selected model. The table has columns for Select, Name, Custom Field Template, # Tasks, Active Date, and Inactive Date. All requirements listed have 0 tasks and an active date of 2/28/2006.

Select	Name ▲	Custom Field Template	# Tasks	Active Date	Inactive Date
<input type="checkbox"/>	# Amp_Water_Pump_Scrubber_4	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	# Downtime_Scrubber_10	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	# Downtime_Scrubber_4	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	# P_Drop_Scrubber_4	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	# pH_Scrubber_10_Acid_Solution	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	Use of PRM in Core Wash	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	Visible_Emissions_BH_12	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	Visible_Emissions_Scrubber_4_Stack	Unique_Tag	0	2/28/2006	-
<input type="checkbox"/>	Visible_Emissions_Windows_All	Unique_Tag	0	2/28/2006	-

The table also includes pagination information: Page: 1 of 1, Results per Page: 10.

CEMLink™ EV System – Screen Shots

Compliance Event Management

The screenshot displays the Enviance VIM Technologies web application interface within a Microsoft Internet Explorer browser window. The browser's address bar shows the URL <https://go.enviance.com/MainForm.aspx#>. The application header includes the VIM Technologies logo and navigation links for Profile, Online Help, and Logout. A top navigation bar contains buttons for Desktop, Calendar, Message Center, Task Manager, Template Manager, Material Activity Manager, and Admin/Security Manager.

The main content area is divided into two sections. On the left is a 'System Models' tree view under 'VIM Technologies (Home)'. It lists various models such as Foundry_1, Paper_Mill_1, and Event Logs. The 'Event Logs' section is expanded to show a list of events, with '01 - Batch Digester [1]' selected. On the right is the 'Data Manager' section, which displays details for the selected event:

Object Path: VIM Technologies\Paper_Mill_1\MACT Event Monitoring\01 - Batch Digester\Event Occurrence
Duration of Event: 5/5/2006 3:00:00 PM to 5/5/2006 4:00:00 PM
Limit Type: Internal Limit

Field	Value
Instance Name	BI Ch Fac
Begin Date	5/5/2006 3:00 PM
End Date	5/5/2006 4:00 PM
Requirement	Event Occurrence
Limit	Internal Limit
Due Date	5/6/2006 3:00 PM

Below the table are 'Event Template Fields' with the following text:

- Was the SSM Plan followed during the event (yes/no)?
no
- Did an excess emission occur during the event (yes/no)?
no
- Operator(s) Name?
None given
- Occurrence (date and time) for each "normal operation" (i.e. startup end time and shutdown beginning).
None given
- Occurrence and duration of each startup, shutdown or malfunction of air pollution control equipment.