Whidbey Island, WA
Ridgecrest, CA
Albuquerque, NM
Las Cruces, NM
Fort Hood, TX
San Antonio, TX
San Antonio, TX
Miami, FL
Winter Park, FL
Huntsville, AL
Virginia Beach, VA
Fairmont, WV
Marlton, NJ
Ft Belvoir, VA
Virginia Beach, VA
Bulgaria
Italy
Japan
Global Sentry

EWA - Australia

EWA - Canada

Herndon, VA

Crystal City

EWA Operating Locations
Facilities

- Secure engineering and software development labs
- Computer-aided design and engineering centers
- Information technology security evaluation facilities
- Supercomputer and virtual reality laboratories
- Laser laboratory
- Fully automated graphics centers
- ISO 9001 registered -- EWA-Canada
Areas of Expertise

- Electronic Warfare
- Intelligence operational support and analysis
- Information Operations
- Information Protection and Assurance
- Special Operations
- Design and development of training systems
- C4I
- Hyperspectral systems design and analysis
- Test and Evaluation
- Field engineering and data collection
- Technical analysis and programmatic support
Areas of Expertise cont’d

- Systems engineering and integration
- Software design and development
- Software reuse technology
- Rapid prototyping
- Networking design and development
- Data visualization
- Radar design
- Digital Signal Processing (DSP)
- Image Processing
- Voice recognition processing
- Foreign materiel acquisition (FMA)
Performance & Security Engineering Group: Areas of Expertise

- Web-enabled, integrated environmental, energy, security management and monitoring systems.
- Control system and industrial process vulnerability assessments, penetration testing, and incident response.
- Plant and facility security assessments and upgrades.
Radford Army Ammunition Plant
Environment Development and Management Program

REDMAP

40 square mile industrial facility producing explosives and propellants for the U.S. Army
Ammonia Plume Dispersion Model/Emergency Response System

Upstream Effluent Quality Monitoring Stations

Sulfuric Acid Concentration Monitoring Process

Selective Catalytic Reduction/NOx

Wireless Data Display & Logistics Management System

Outfall and River Temperature Monitoring

IP Camera & Sensor Surveillance Network

Biological Wastewater Treatment Control and Monitoring

Meteorological Station

REDMAP Modules
Plant-Wide Perspective for Facility and Security Management
Data from REDMAP, combined with ongoing pollution prevention efforts, are enabling plant operators to optimize the biological treatment activity to reduce the amount of toxic sludge generated, which was reduced 60 percent in one year, despite wastewater volume increases.
Data analysis from REDMAP’s Up Stream Monitoring System enabled operators to save 400,000 gallons of water per day in unnecessary flows from one of the plant’s production areas, saving money and a valuable resource, but also improving the operational efficiency of the wastewater treatment plant.
On-Line Document Storage & Retrieval

- Manuals, schematics, operating and emergency procedures, vendor literature, regulatory reporting, software drivers, trend analyses.
- All critical documentation is available to everyone with access to the EIS intranet.
- Documentation updated on-line is immediately available to users throughout the facility.
• Web-enabled database and document management tool that conforms to the structure of the ISO 14000 series of environmental management standards.

• ISO 9000 and safety management versions under development.

• Integrates real-time environmental and industrial process monitoring with management system objectives, targets, and procedures.
Brytepath’s design conforms to the ISO 14001 standard for environmental management systems, but is customizable for other EMS approaches.
BrytePath’s Document Manager dramatically simplifies document management and auditing requirements.
Brytepath is accessible from any Browser-equipped and authorized PC, and provides a customizable “dashboard” for all personnel with EMS responsibility or interest.
BrytePath provides multi-layer security and manager-defined user privileges for logins, screen editing, document uploading, and more.
Unique features include:

- Color-coded reminders for EMS, PM or other task deadlines.
Unique features include:

- Integrated real-time or historical performance and other user-defined reporting.
Unique features include:

• Easy access to key EMS documents and contacts.
BrytePath organizes all information needed for achieving EMS goals on one screen. Clicking on blue links opens up needed documents, procedures, legal text, contact and training information for each environmental aspect.
Color-coded update reminders simplify burdensome document review requirements.
Screen Navigation Examples

Hyperlink opens up key contact info.

Hyperlink opens individual training report.

Reduce number of out of compliance events for air emissions at Power Plant.

Target Description:

No out of compliance events or violations of Title V permit or Virginia air regulations for FY01.

Operational Responsibility: Frank Black

Operational Controls:

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<tr>
<th>Class</th>
<th>Description</th>
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<td>Technological</td>
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Monitoring & Meas. Description: Continuous Emissions Monitor for particulates, Opacity meter, calculated values for sulfur content and total emissions.

Performance Indicators: total particulates in ppm, total suspended particulates in lbs/hr/BTU, sulfur dioxide in lbs/hour.
Aspect Description:

Preventive maintenance is required on boilers, ESPs, instrumentation and electrical equipment, to ensure that air emission limits are not exceeded. Potential for violation of Title V permit applications and Virginia air regulations.

Aspect Review Date: August 1, 2002 by Frank Black

Objective Description:

Reduce number of out of compliance events for air emissions at Power Plant.

Target Description:

No out of compliance events or violations of Title V permit or Virginia air regulations for FY01.

Operational Responsibility: Frank Black

Technological

1. Power Plant Operational Procedures - Rev. 1/22/03

Administrative

1. Reporting Schedule - Rev. 9/18/02

Monitoring & Measurement Description: Continuous Emissions Monitor for particulates, Opacity meter, calculated values for sulfur content and total emissions, total particles in ppm, total suspended particulates in lbs/hr/8TU, sulfur dioxide in lbs/ hour.

Performance Indicators: Summary - Rev. 8/12/02 / Federal - Rev. 11/27/02 / State - Rev. 3/15/03 / Other - Rev. 9/08/02

Legal & Other Requirements: Click on hyperlink to open legal and regulatory requirements for this aspect.

Non-Conformance, Corrective & Preventive Actions: Click Here
Aspect Description:
Preventive maintenance is required on boilers, ESPs, instrumentation and electrical equipment, to ensure that air emissions limits are not exceeded. Potential for violation of Title V permit applications and Virginia air regulations.

Aspect Review Date: August 1, 2002 by Frank Black

Objective Description:
Reduce number of out of compliance events for air emissions at Power Plant.

Target Description:
No out of compliance events or violations of Title V permit or Virginia air regulations for FY01.

Operational Responsibility: Frank Black

Operational Controls:
Technological
- Power Plant Operational Procedures - Rev. 1/22/03

Administrative
- Reporting Schedule - Rev. 9/18/02

Monitoring & Meas. Description: Continuous Emissions Monitor for particulates, Opacity meter, calculated values for sulfur content and total emissions, total particulates in ppm, total suspended particulates in lbs/hr/STU, sulfur dioxide in lbs/ hour.

Performance Indicators: Summary - Rev. 8/12/02 / Federal - Rev. 11/27/02 / State - Rev. 3/15/03 / Other - Rev. 9/08/02

Legal & Other Requirements: Click Here

Operational Area: Power Plant
Activity: Boiler Operations

Track EMS Non-conformances.
EMS - Air - Non-Conformance, Corrective & Preventive Action
Aspect: Air Emissions from Power Plant

Action Description: Power failure in ESP
Operational Area: Power Plant
Activity: Boiler Operations
Operational Responsibility: Frank Black
Date of Event: Tuesday, August 22, 2000

Details of Non-Conformance:
A power failure in the ESP system caused by a blown fuse and an improperly configured emergency back-up generator resulted in excess particulate emissions from the power plant stack for a period of 20 minutes before the shut-down in the ESP was noticed by the operator and the cause was determined.

Details of Corrective/Preventive Action:
Repairs were made to the emergency backup generator to ensure that a similar failure does not take place again. Operating procedures were modified to include monthly tests of the back up generator. Alarm levels were adjusted on the ESP monitoring system to ensure that the operator is alerted earlier should there be a similar shutdown of the system.

Status:
There has been no further re-occurrence of this problem since the procedural review took place.

Review Date: Wednesday, August 22, 2002
Report Prepared by: Frank Black
Doc. References: SR EMS Manual - Rev. 1/02/02 | Photo - Rev. 12/01/02 | CAD Link - Rev. 9/01/02
A BrytePath EMS is easily implemented and maintained by any authorized manager. No Web or database expertise required.
EMS Screens are easy to add and update.
Documents and procedures are easy to upload with review dates and responsibilities automatically reporting back to managers and assigned personnel.
BrytePath enables an online EMS audit.
BrytePath’s EMS manager’s screens simplify EMS procedure and document review requirements through color-coded tickler system.
Summary

• REDMAP has shown Web database technologies can simplify and reduce costs in implementing and administering EMS.

• A paperless approach to EMS deployment removes much of the burden of EMS administration.

• Integration of sensors and other real-time information with EMS goals can increase the utility and returns of an EMS.

• BrytePath is currently being deployed in the hotel, chemical, and asphalt industries, as well as at Radford and Jacksonville Naval Air Station.
For more information, call:
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703-904-5059
email: jhallett@ewa.com