

Veterans Health Administration

GEMS Program - Lessons Learned

Federal Environmental Symposium – WEST

Big Sky, Montana

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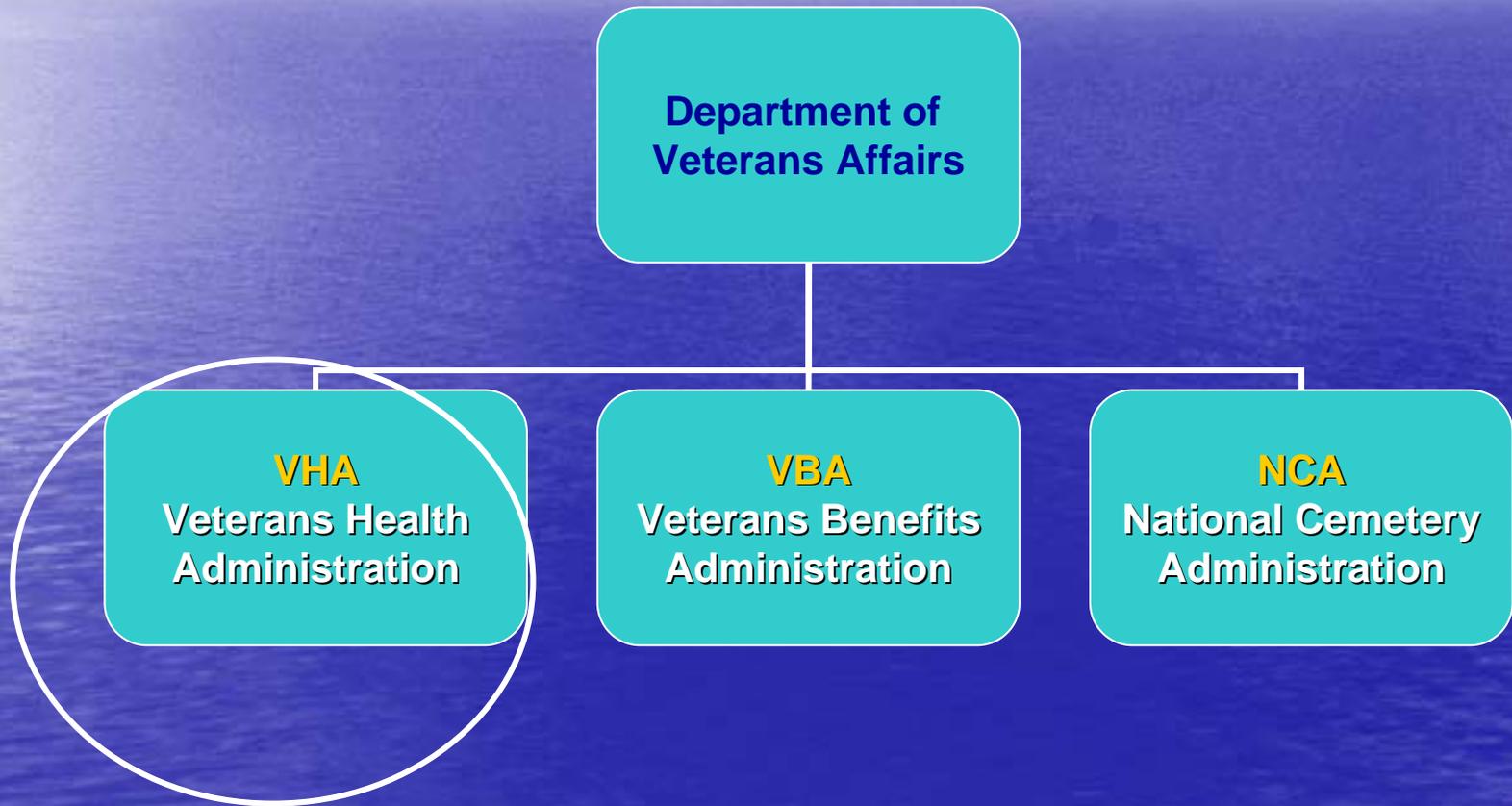
Environmental Engineer

*VHA Center for Engineering & Occupational Safety
and Health (CEOSH)*

Presentation Setup

- VHA Organizational Structure
 - DVA and VHA
 - Management
- A history of the GEMS Program implementation:
 - The need for GEMS
- New Program requirements
- GEMS Upgrade:
 - Next steps

DVA Organizational Chart:



Organizational Structure of the VHA

- Central Office - Diverse Operations with multiple decision making centers (parallel management Structures):
 - Clinical side:
 - Medical
 - Pharmaceuticals
 - Infrastructure:
 - Engineering, Facilities management, Housekeeping
 - Planning and Design: Renovations, Major Capital projects
 - Information Management (IRM)
- “Networks”: De-centralized management structure
 - Veterans Integrated Service Networks (VISN) -
- VA Medical centers: Facility level management

Who is Responsible for VHA Environmental Programs in the Field?

- VISNs
 - VISN Health and Safety Program Manager
 - VISN GEMS Coordinator.
- VAMCs:
 - VAMC GEMS Coordinator
 - Environmental Engineer
 - Industrial Hygienist
 - Safety Manager
 - Facilities Management/Engineering Service
 - Associate Director's Office
 - Quality Management

GEMS Program Implementation

When and Why did VHA Initially get involved with EMS:

- 2002 EPA Federal Facilities Enforcement Office (FFEO) inspected several VA Medical centers (VAMCs) and observed similar compliance issues at a number of them.
- August 2002: The EPA and VA agree to collaborate on a number of initiatives to improve environmental compliance at VAMCs.
 - Environmental Management Reviews (EMRs) at selected VHA facilities:
 - **Not a compliance audit.** Except in egregious situations, citations are not issued.
 - Identified the strengths and weaknesses of facilities' environmental programs
 - Evaluated what was needed to improve management structure and process.
 - Developing training materials that could improve environmental compliance throughout the VA MCs.
- EMR conclusion: the VAMCs had in place many of the pieces that would be required for a successful environmental program. What was needed was a way to pull them all together!

...Environmental Management System: EMS:

VHA Drivers for Implementation of EMS:

- **Need to improve environmental performance:**
 - Centralize and improve management of regulatory compliance and become better environmental stewards (Conservation of Natural Resources and Preservation)
 - Develop a structured way of determining root causes of environmental issues and come up with solutions.
- **Executive Order (EO) 13148:**
 - Implement EMS at “appropriate” facilities by 12/31/2005. Also added more stringent requirements on federal facilities in terms of Environmental Stewardship.
 - VHA Directive 2005-011, VHA Green Environmental Management System (GEMS) and Governing Environmental Policy, issued 3/7/2005.

Implementation of GEMS

Framework Setup:

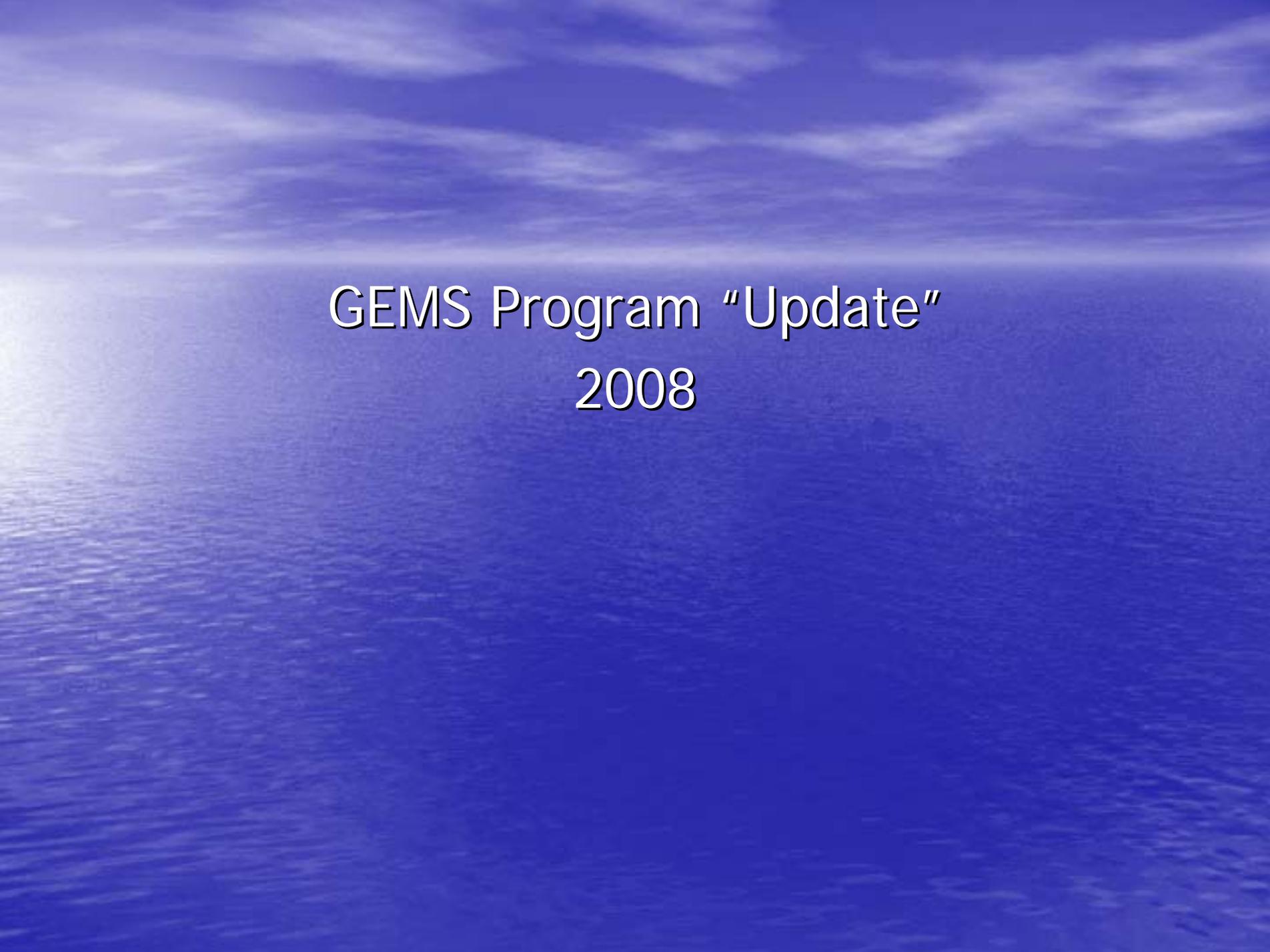
- **VHA level**
 - Establish Environmental Policy
 - Establish “GEMS Guidebook” (March 2004) based on ISO 14001 Standard
 - Describe how the GEMS program was to be implemented: 9-step process.
 - Training for Top management at local level
- **VISN Level**
- **Local (facility) Level**
 - Establish local level Environmental Managers: GEMS Coordinators
 - Establish GEMS Committee: getting all the parties involved.
 - Follow “GEMS Guidebook” as a Step-by-step guide for GEMS implementation

Nine Steps to Establish a Successful EMS (GEMS) at a Local – Facility - Level



GEMS Implementation Success:

- **Management Support:**
 - Active support and commitment by senior management at VHA CO, VISN and VAMC levels.
 - Selection of GEMS Coordinators
 - Robust GEMS Committee
- Building the GEMS program on existing procedures and processes – don't reinvent the program, connect with existing elements.
- Training



GEMS Program "Update"
2008

Additional Objectives set by EO 13423:

- 1. Energy Efficiency and Green House Gas Emissions**
 - Reduce energy intensity 3% annually through FY 2015
- 2. Renewable Energy**
 - Half of renewable energy consumed comes from renewable sources
 - Implement renewable energy generation projects
- 3. Water Consumption**
 - Reduce water consumption intensity
- 4. Acquisition**
 - agency goods and services use sustainable environmental practices
- 5. Reduction of toxics**
 - Reduce toxic and hazardous chemicals use
- 6. Construction**
- 7. Transportation**
 - Reduce consumption of petroleum products, Increase non petroleum fuel consumption and promote the use of plug in hybrid vehicles
- 8. Management of Electronics**

Compliance vs. "Greening"

- Compliance with federal, state and local laws
 - It could be accomplished at the facility "local":
 - Examples include design and installation requirements, training, inspections, documentation etc.
 - Local level senior leadership is sufficient to *promote and maintain compliance* through clearly articulated roles and responsibilities
- "Greening the Federal Government"
 - It involves "big picture" items that usually cannot be accomplished locally:
 - Limitations in local resources
 - Expertise

Program updates

I. Communication

i. "Central Office"

- Monthly GEMS Coordinators Conference call: put together by CEOSH
- Minutes shared through Web-site
- Web-site information exchange
- E-mail group for all GEMS Coordinators.

ii. VISN Level

- Monthly face-to-face meeting or conference call for Facility level GEMS Coordinators
- Use of economies of scale were applicable and evaluate synergies between facilities as well as other, outside, local hospitals.
Example: Establish VISN-wide contracts
- GEMS Coordinators participate in VISN Level committees and decision making groups.

iii. Local Level

- GEMS Committee meetings
- Mandatory Training
- Local Newsletter publications

Program Updates

II. Development of **New GEMS Guidebook**

- I. Reflect new GEMS program philosophy and EO 13423

III. **Advisory Groups**

- I. GEMS-PAG:

- What is it: Professional Advisory Group established with a membership of Top-level management and GEMS Coordinators
- **Centralized Decision making. Sharing of expertise.**
- Focus on "attaching" the issue through a **"top-down" approach.**
- Minutes shared through Web-site. Also used for other types of information exchange.

- II. CP-TRACK Advisory Group (Compliance Tracking Software)

- Updating

- III. Examples:

- Spearhead a Department-wide approach to Pharmaceutical waste management.
- Establish Contract language
- Training:
 - AGT and UST
 - On-going compliance training for GEMS Coordinators.

Program updates

IV. Community Involvement

- I. Participation in Groups outside of the Department:
 - H2E: Hospitals for a Healthy Environment

- II. Local Level:
 - Example: New York Harbor participates in the Greater New York Hospital Association
 - New York Health and Hospital Corporation (Part of NYC Government)

Workshop Topics/ Examples

Discussion of aspects that may need to be addressed through centrally controlled processes and decisions

Energy

- Facilities Level Management:
 - Promote the use of **Energy Management Control Systems**. This would include **Advanced Metering systems** as well as improved overall Building Control Systems.
 - Provide centralized funding and engineering support on implementation, operation and maintenance.
- Design and Construction:
 - Incorporate Energy issues into the design and construction process from an early phase.
- Procurement:
 - “Alternative” Energy sources: solar, wind, bio-diesel etc.
 - Equipment purchases, Energy Star
 - Life-cycle analysis
- Contracting:
 - Energy Savings Performance Contracts
 - Co-generation

Construction

- Facilities Management
 - Use whole building design guide for major renovations projects
 - NEPA impact statement
 - Greenhouse Gas Emissions
- Contracting:
 - Enhanced Lease Options
- Design and Construction:
 - Update of Master Plans and specifications to reflect “Green Building” Design objectives
 - Specifications that optimize energy efficiency and renewable energy
 - Options for LEED Certification

Acquisitions

- GSA Approved Procurement Options:
 - Vehicles: cars, trucks and buses
- Credit card holders
- Comprehensive Procurement Guidelines

Electronics

- Centrally controlled purchases of electronics & medical equipment:
 - Purchasing criteria: EPEAT, Energy Star
 - Life-cycle cost analysis
 - Leasing programs
 - Disposal and substitution (LCDs for CRTs) must be taken into consideration: universal waste procedures and centrally administered recycling contracts (UNICOR)
- Disposal:
 - Logistics service
 - Transportation requirements (Facilities Management)
- Operational issues and Power management options:
 - Two sided printing
 - Automatic shut-down (“sleep” mode): computers must be “on” for regularly software patches and updates. Power management solutions are being investigated.
 - Screen savers

Pharmacy Waste

- Centrally controlled
 - Reverse Distributer
 - Credit for individual
- Current efforts with contractor and evaluation of the VHA formulary for EPA listed waste types.

Water Use

- Facilities Management
 - Infiltration & Intrusion
 - Process water
 - Irrigation
 - Water conservation in bathrooms
 - NEPA impact statement **Greenhouse Gas Emissions**
- Contracting:
 - Major renovations projects
- Design and Construction:
 - Water cooled condensers and compressors
 - Specifications that optimize **water efficiency** and **reuse**

Conclusions:

- GEMS: An evolving program!
- More robust Environmental Management System:
 - Integrate Environmental decisions into top-management activities.
 - Promote Communication and awareness
- Guidance Groups
 - Make experts available to local facility GEMS programs
 - Funding Environmental compliance review and audits
- Management Review of program:
 - Evaluate effectiveness as well as overall operational **efficiency**
 - Target “kinks” in the system

