

# Environmental Management Systems and ISO 14001 Certification



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# Overview

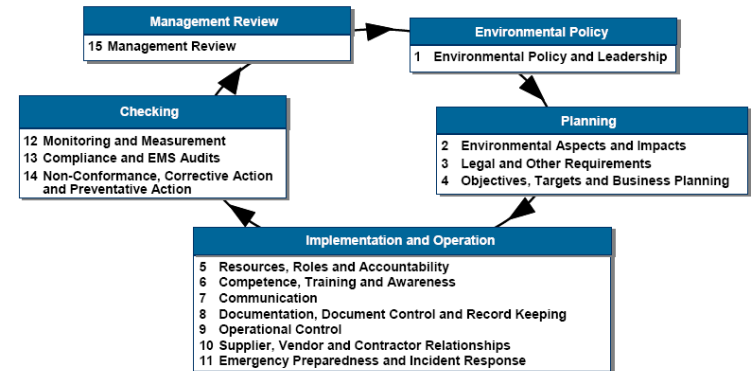
- EMS and ISO Background
- Audits and Readiness
- Gas Certification Pilot
- Project Costs & Schedule
- ISO 14001 Certification Benefits
- Lessons Learned
- Q&A



Presentation of BGE Gas Distribution ISO 14001 Certification plaques at 6<sup>th</sup> Annual BGE Environmental Achievement Awards on March 22, 2011

# What is an EMS and ISO 14001?

- An environmental management system (EMS) is established to understand and manage environmental compliance requirements and reduce environmental impacts
- An effective EMS facilitates an ongoing process of “plan, do, check, and review” for continuous improvement
- ISO 14001 is a standard maintained by the International Organization for Standardization (ISO) that outlines specific requirements for an environmental management system
- BGE already maintained an EMS, including some EMS requirements going beyond ISO 14001 requirements



# What Does ISO 14001 Certification Involve?



- Fully functional and well-documented EMS
- EMS Internal Audit of all facilities desired to be listed under certification
- EMS Management Review required before certification audit
- ISO 14001 certification is granted by an authorized registrar following successful completion of Stage 1 and 2 certification audits performed by the registrar
- The certification audits include record reviews, field observations, and employee interviews
- There is an opportunity to resolve issues between the Stage 1 and Stage 2 audits
- Once certified, the company must conduct annual surveillance audits and a full re-certification audit every 3 years to maintain certification
- **Challenge:** ISO 14001 certification is normally granted to a facility (such as a manufacturing plant). Utilities have operations spread over many facilities and distribution systems that are geographically dispersed.

# Types of Third-Party Environmental Audits

## Environmental Regulatory Compliance Audits

- Facility – wall-to-wall inspections focusing on compliance with environmental regulations (federal, state, local, permits)
- Program – specific environmental programs are audited (i.e. Sediment & Erosion Control/NPDES)
- EHS – includes safety and health with environmental during audit

## ISO 14001 Audits

- EMS Internal – focus on company environmental management system and processes
- Certification – covers every element of the ISO 14001 against the entire management system (recertification every 3 years)
- Surveillance – covers key clauses of ISO 14001 during an annual “check” (i.e. internal audit, corrective action, management review)



BGE ENVIRONMENTAL MANAGEMENT SYSTEM MANUAL		
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Attachments (Pages Varies Only)		
1.	BGE Environmental Policy	
2.	BGE Major Environmental Event Notification Policy	
3.	BGE Permitting Maintenance Policy	
4.	BGE Environmental Standards	
5.	BGE Guidance Documents	
6.	Environmental Guide Reference Guide	
7.	Environmental Permit Guide (Preface and Table of Contents)	
8.	Environmental Work Procedures: Part of BGE Safety Manual (List of Procedures)	
9.	BGE Aspects Inventory	
10.	Compliance Objectives	
11.	Sample SPCC Plan	
12.	Approved TSDP List	
Appendices		
BGE EHS Web page: <a href="http://www.bge.com/Environmental/EnvironmentalIndex.htm">http://www.bge.com/Environmental/EnvironmentalIndex.htm</a>		
CR Environmental Management Web page: <a href="http://www.bge.com/Environmental/EnvironmentalManagementIndex.htm">http://www.bge.com/Environmental/EnvironmentalManagementIndex.htm</a>		
BGE ENVIRONMENTAL MANAGEMENT UNIT		
Revision		Date
1.0		01/10/08

## Gas Distribution ISO 14001 Certification Audit Pilot – Jan. 2011

- BGE consulted with other utilities that are ISO 14001 certified
- BGE has one company-wide EMS, but divided company into four functional areas – Gas Distribution, Electric Transmission & Distribution, Fleet Operations, and Shared Services
- BGE decided to pilot Gas Distribution due to size, oldest U. S. natural gas company
- Gas Distribution audit involved leaders and employees in four divisions
- Areas directly interviewed:
  - BGE Environmental Management Unit - Gas Engineering & Standards
  - Gas System Planning & Facility Management - Gas Construction Maint. & Repair
  - Gas Systems Operations - Gas Service
  - G&E Standards & Work Practice Compliance - Energy Measurement & Records
  - Land/Gas Maps & Asset Records - Paving & Restoration
- Targeted interviewees - affected directors, supervisors, employees, Environmental Management Unit (EMU) members, Environmental Technical Committee members
- EMU staff handled records and documentation review



# Typical ISO 14001 Certification Audit Questions

1. Where can you find BGE's Environmental Policy and what are some key points?
2. How does the Policy apply to you and your work?
3. What are the environmental aspects/impacts of your work?
4. What EMS objectives/targets apply to your work?
5. What environmental procedures do you follow?
6. Where can you find your environmental standards and work practices?
7. Can you show me how you find these references on our web site?
8. What kind of environmental training have you received?
9. How do you communicate environmental concerns to management?
10. What would you do in the event of a spill?
11. What would you do in the event of a plant emergency?
12. What would you do if you had an environmental question?
13. Who is your EMR (environmental management representative)?





# Costs, Schedule, Support for ISO 14001 Certification

## Costs

- Audit costs for third party audits (EMS, Certification)

## Schedule

- 2-year project – preparation, readiness, pre-audits
- Piloted Gas Distribution functional area
- Combined Electric Transmission & Distribution, Fleet Services, and Shared Services into second wave to certify BGE company-wide

## Support

- Executive approval, EMU focus
- 1 FTE added to assist with implementation/certification phase



BGE received ISO 14001 certification of Gas Distribution function on March 2, 2011





# Benefits of ISO 14001 Certification – Environmental

- Increased focus on regulatory compliance and environmental compliance deliverables
- Emphasis on environmental impacts of each employee job
- External recognition by environmental regulators and positive environmental communications for voluntary certification efforts
- From former MGP site to ISO 14001 certified hub of Gas Distribution – great “Gas” story
- Enhanced/new procedures – such as corrective action procedure



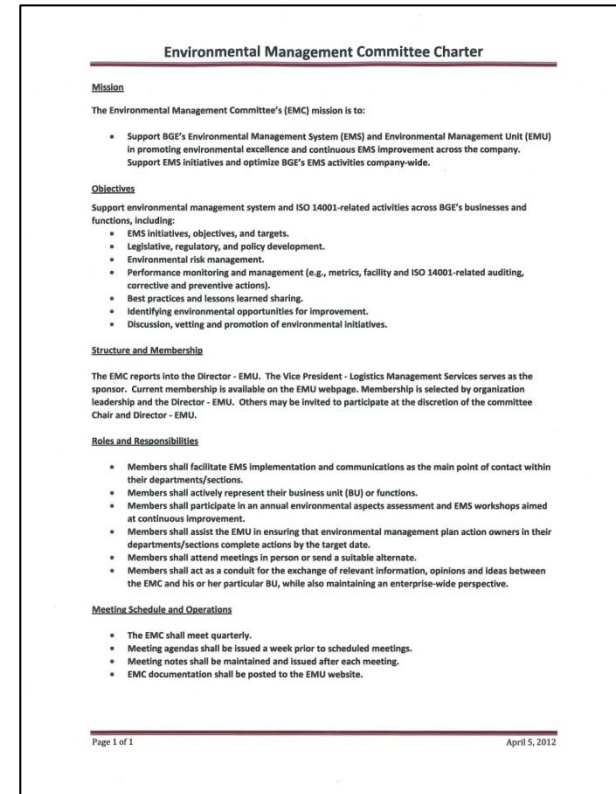
# Benefits of ISO 14001 Certification – Beyond Environmental

- Document revision and version control
- Training report standardization and tracking process
- Record retention and record locations
- Increased contractor education on policies and requirements
- Enhanced permitting and tracking process
- New employee standards for regulatory inspections
- Enhanced internal communications (EMS site coordinators)
- External company branding linked to environmental leaders and “going above and beyond” requirements



# Lessons Learned – Creating EMS Coordinators

- BGE EMU recognized the need to implement line organization EMS Coordinators to assist with EMS requirements and ISO 14001 certification.
- Recent EMS internal audit – recommendation to implement EMS Coordinators (in addition to EMU employees).
- EMU consulted with other pipes and wires utilities and analyzed our existing organizational structure with the BGE Environmental Technical Committee (ETC).
- EMS Coordinators were selected based upon involvement with ETC, Env. Awards, audits, and necessity to have certain areas represented.
- ETC Charter was amended to account for ISO 14001 and EMS Coordinator responsibilities.



# Lessons Learned

- Required new Environmental Awareness Training for all employees
  - New environmental training report process implemented
  - Training report and computer-based-training courses won 2012 SEE Industry Excellence Award
- Avoid confusion with corporate systems and documents
- Documents – “do what you say and say what you do”
  - Don’t over complicate processes
- Strive to reach “steady-state” with EMS documents and procedures
- Thank your employees and management for their efforts to gain this international certification



# Questions?



- Other helpful references:
  - [www.epa.gov/ems/](http://www.epa.gov/ems/)
  - [www.iso.org/iso/iso\\_14000\\_essentials](http://www.iso.org/iso/iso_14000_essentials)