

Environmental Management for New Construction Projects

MD-DC Utilities Association,
2015 Environmental Conference
Agenda

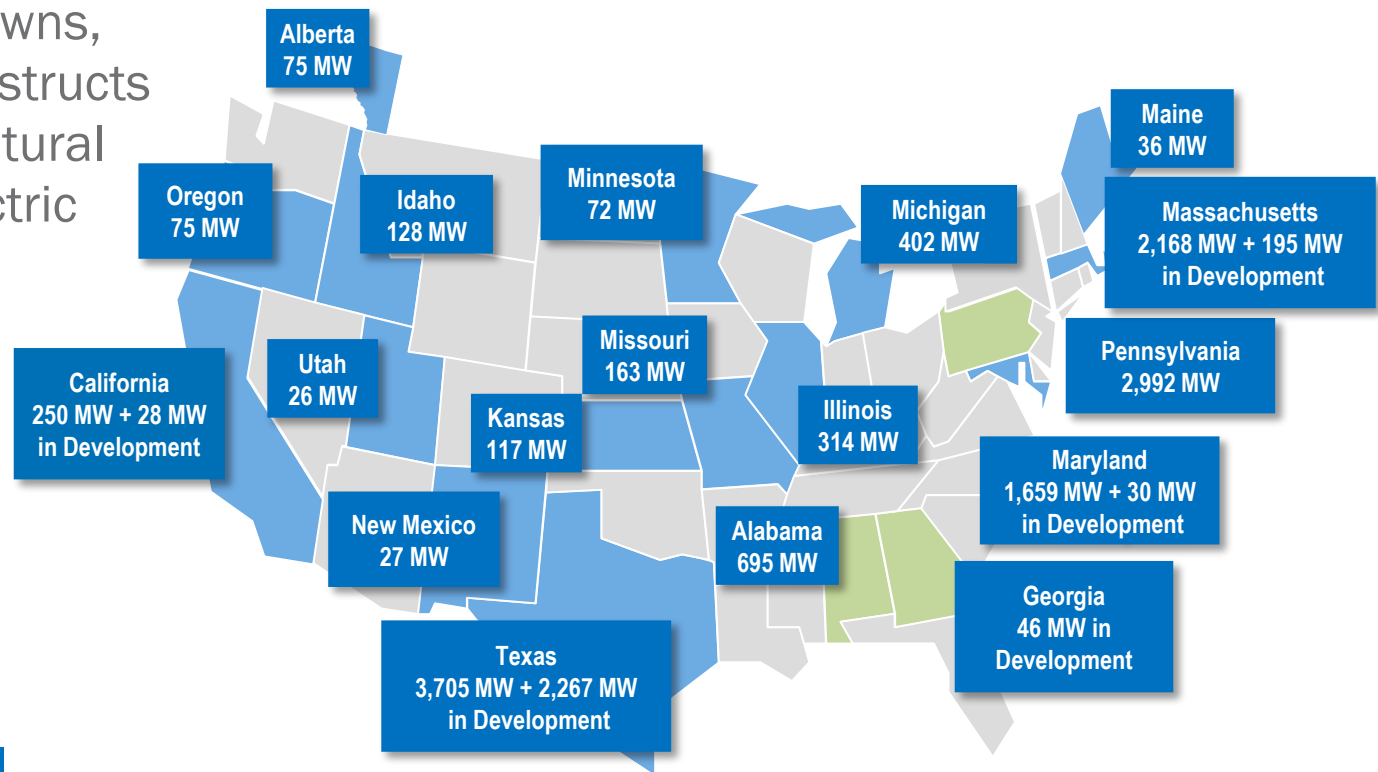
October 21st, 2015



Exelon Generation®

About Exelon Power

Exelon Power is the business unit of Exelon Generation that owns, operates and constructs the company's natural gas, oil, hydroelectric and renewable generation.



Generating Capacity
12,901 megawatts

No. of Generating Stations
82 (16 States and Canada)

2014 Generation
34 million megawatt hours

Exelon Power Construction Overview

8 projects
> 2,700 MWs



- ❖ 5 States
- ❖ 5 Different Technologies
 - Two Combined Cycle Plants
 - Two Wind Farms
 - Two Simple Cycle Plants
 - Biomass Plant
 - Digester Gas Plant

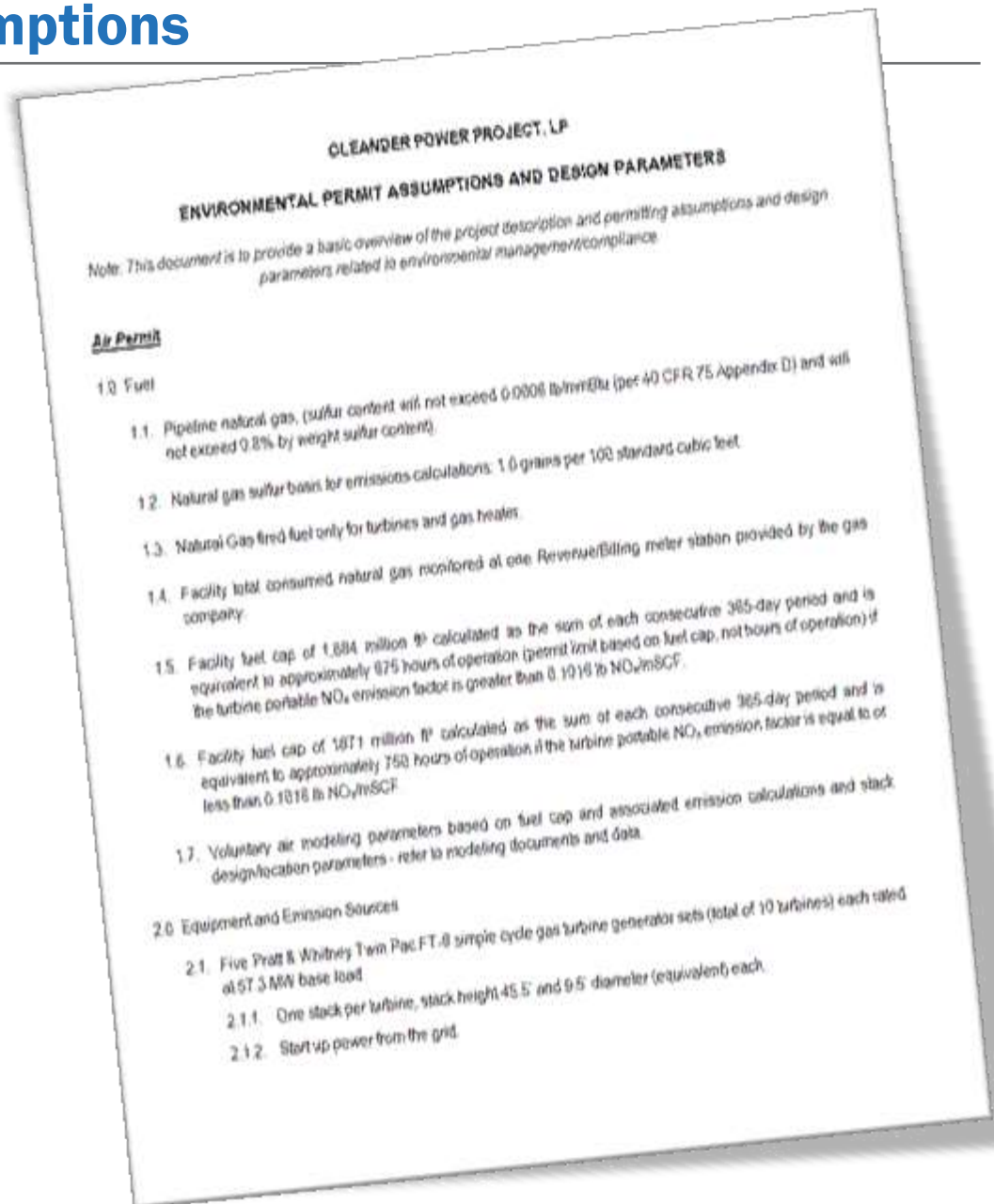
Construction Oversight

- ❖ Construction and Project Management (CPM) group formed to coordinate oversight of project execution (construction)
- ❖ Management Model
 - Program to manage our work activities
 - CPM Management Model Procedures developed to cover all aspects of construction
 - Environmental Procedures
 - Permitting
 - Construction Oversight
 - Integration



Defining Permitting Assumptions

- ❖ So how do you get Senior Management to sign the permit application that is contained in several three ring binders?
- ❖ How do you tell operations this is what you have permitted?
- ❖ If someone wants to change something during the construction process how do you know what it impacts?



Documenting Compliance Requirements

- How do you define who is responsible for what compliance activities during construction?
- Particularly during commissioning where you have three groups potentially working on environmental activities (construction group, contractor, and operations)

Media	Activity Description	Regulatory or Permit Reference	Agency	Activity Type	Due Date	Occurance	Responsible Party	Date Activity Completed	Comments
NPDES - CONSTRUCTION STORMWATER PERMIT									
Water-CC-1	Perform regular cleanup & proper disposal of all floating or submerged trash resulting from construction.	Construction Storm Water Permit ALR160524	ADEM	IN	during construction	ongoing	Tammy Sanford	DNA	Regular inspections and cleanup are performed on a regular basis at the site.
Water-CC-2	Record information on the inspection report per permit requirements	Construction Storm Water Permit ALR160524 Section C3	ADEM	RT	during construction	each inspection	Tammy Sanford / Malcom LeBron	DNA	
Water-CC-3	Complete inspection reports on forms approved by the department and have them available for inspection, legible with original signature (copies of signature not acceptable).	Construction Storm Water Permit ALR160524	ADEM	RK	during construction	no later than 30 days after date of inspection	Tammy Sanford / Malcom LeBron	DNA	
Water-CC-4	All reports and forms to be signed by "responsible official" or "duly authorized representative" with certification language included verbatim as per permit.	Construction Storm Water Permit ALR160524 ADEM Admin. Code R. 335-6-6-.09	ADEM	RT	during construction	ongoing	Tammy Sanford	DNA	
Water-CC-5	Maintain all reports, sample results, etc (per permit) for at least 3 years after sample, report, or NOI	Construction Storm Water Permit ALR160524 C.4	ADEM	RK	during and after construction	ongoing	Tammy Sanford	DNA	
Water-CC-6	Comply with all permit conditions until approval to terminate coverage (after NOI) is granted in writing by the Department	Construction Storm Water Permit ALR160524 D.2	ADEM	RT / IN	during construction	ongoing	Tammy Sanford	DNA	

Contractor Expectations

- ❖ Laying out expectations during negotiations
- ❖ Expectations include;
 - ✓ Environmental Plan
 - ✓ Waste Management Plan
 - ✓ Contractor Required Permits
 - ✓ Recordkeeping
 - ✓ Inspections
 - ✓ Event notification
 - ✓ Training

Environmental Construction Management Procedure

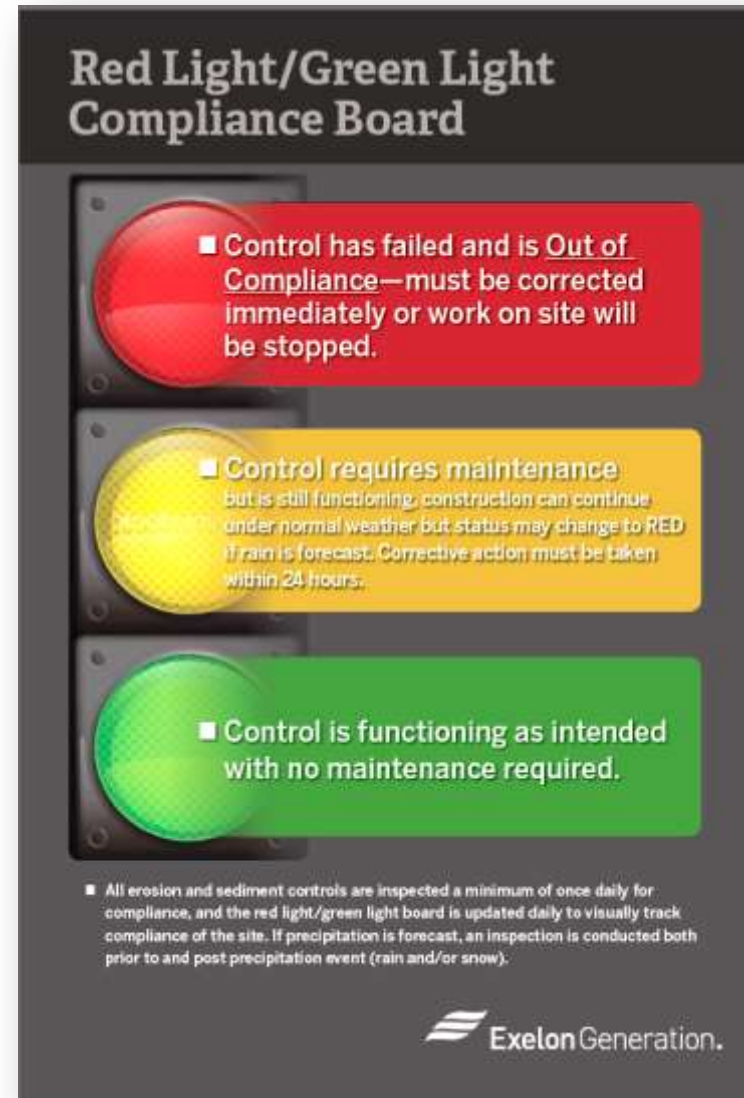
CM-EP-810
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Attachment 7 – CM-EP-810 Prime Contractor Environmental Expectations

1. The Prime Contractor will lead awareness of environmental stewardship and facilitates participation to emphasize everyone's responsibility for environmental compliance and stewardship. The Prime Contractor may identify stewardship opportunities such as pollution prevention, battery recycling and used oil recycling as well as integrating environmental messages with other routine communications.
2. The Prime Contractor will prepare an Environmental Compliance Plan, to be reviewed by the EM, to ensure that construction activities are conducted in accordance with all applicable environmental regulations, permits and this procedure. This Plan typically will include a Construction Stormwater Pollution Prevention Plan (SWPPP), Waste Management Plan, Spill Prevention and Response Plan and Spill Prevention Countermeasure and Control (SPCC) Plan as applicable.

Contractor Oversight

- ❖ Periodic Assessments
- ❖ Waste Management Plans
- ❖ Erosion and Soil Control
 - (Red Light/Green Light)
 - Dependent on project E&S controls can be an area for increased compliance risk and environmental impacts



E&S Control (The **Good**, Bad and Ugly)



E&S Control (The Good, **Bad** and Ugly)



E&S Control (The Good, Bag and Ugly)



Safety, Environmental & Quality Dashboard

Category	Metrics	Comments
Safety		
Environmental		
<i>NOVs (Tier 1 and 2) Since Last Rpt</i>	0	
<i>Total NOVs PTD</i>	0	
<i>Reportable Releases/Spills</i>	0	
<i>Permit Non-Compliance</i>	0	
<i>Negative Reg Inspection Results</i>	0	
<i>Total Environmental Events PTD</i>	0	
NCRs/Engineering Review		

Implementation Checklist

Attachment 6 – CM-EP-810 Example Implementation Checklist

CM-EP-810 Reference	Requirement	Implementation Approach	Responsibility	Documentation	Comments
3.2.6	Confirm that the methods and plans used by the Prime Contractor for compliance are adequate		Environmental Manager	CM-EP-10 Attachment 7: Prime Contractor Environmental Expectations	
6.1.1, 1	Document key design parameters defined in permits	Document key design parameters defined in the permits and the permit application documents; and communicate the permitting history as needed to understand the constraints on the design, construction, or operation of the Project. The EM will communicate this environmental permitting basis to the Project Director and key Exelon personnel responsible for the Project.	Environmental Manager	CM-EP-810 Attachment 2: Example Environmental Permitting Basis	
6.1.1, 2	Compile Permit Book	Notebook compiling copies of all obtained permits, permit applications, and relevant documents as listed in the environmental permitting matrix.	Environmental Manager	Permit Book	The Permitting document will define responsibility between Exelon and the Prime Contractor who responsibility for obtaining permits.

Integration

- Throwing it over the fence is not an effective integration strategy
- Hope that everything needed for operations is not an effective strategy
- Need for looking at all aspects of the project;
 - Permitting
 - Compliance Documents
 - Environmental Management System Documents



Project	Responsible Party	Duration	% complete	Start Date	End Date
Environmental					
<i>Permits</i>					
Acid Rain DR/ADR		0 days	100%		
NOx Budget/ CAIR - AAR/AAAR		0 days	100%		
Title V Permit		0 days	0%		
Temporary Permit To Operate		0 days	100%		
Oil Operations Permit		29 days	0%	6/1/2015	6/30/2015
<i>Miscellaneous Environmental Activities</i>					
Enviance/Maximo Matrix (Environmental)		0 days	0%		
Recordkeeping File Index (Updates Only)		14 days	0%	6/1/2015	6/15/2015
Determine onsite storage location for Environmental Files (if moving) - Relocate if Necessary		91 days	0%	6/1/2015	8/31/2015

Opportunities for Improvements

- Closing the disconnect between contractor documents and contract awareness
- E&S control knowledge with contractors
- Leveraging technologies such as smart phones, iPads, etc...
- ...



Questions?



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