

Consideration of Comments on Draft Implementation Plan for Version 2 and Version 3 CIP Standards for Nuclear Power Plants (Project 2010-09)

The Cyber Security Order 706 Standard Drafting Team thanks all commenters who submitted comments on the draft implementation plan for version 2 and version 3 Critical Infrastructure Protection Standards for Nuclear Power Plants. These standards were posted for a 30-day public comment period from February 12, 2010 through March 15, 2010. The stakeholders were asked to provide feedback on the standards through a special Electronic Comment Form. There were 11 sets of comments, including comments from 37 different people from over 20 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

http://www.nerc.com/filez/standards/Cyber_Security_Order706B_Nuclear_Plant_Implementation_Plan.html

Most stakeholders who submitted comments agreed that the proposed implementation plans provide a reasonable timeframe for implementation of Version 2 and Version 3 CIP standards at nuclear power plants – and most stakeholders agreed that the proposed implementation plans meet the associated FERC directive.

Some stakeholders proposed extending the implementation timeframe beyond that proposed by the drafting team, but did not propose any ‘new’ reasons for this proposal. NERC is obligated, per FERC Order, to implement Version 2 and Version 3 CIP standards on the same schedule as Version 1, unless there is compelling justification to offer a different date. Absent any new information that would provide a compelling reason to extend the timeframe for implementation of the CIP standards, the team believes it appropriate to continue to align the Version 2 and Version 3 implementation plan dates for CIP-003 through CIP-009 on the same course as the schedule for implementation of the Version 1 implementation plan.

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures: <http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

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2. Does the proposed implementation plan language satisfy the FERC directive relative to the implementation of CIP Version 2 and future versions of the CIP standards at U.S. nuclear power plants? 10

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The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
1.	Group	Denise Koehn	Bonneville Power Administration	X		X		X	X					
		Additional Member	Additional Organization	Region		Segment Selection								
		1. Charles Sweeney	BPA, Transmission Sales	WECC		1								
2.	Group	Guy Zito	Northeast Power Coordinating Council											X
		Additional Member	Additional Organization	Region		Segment Selection								
		1. Alan Adamson	New York State Reliability Council, LLC	NPCC		10								
		2. Gregory Campoli	New York Independent System Operator	NPCC		2								
		3. Roger Champagne	Hydro-Quebec TransEnergie	NPCC		2								
		4. Kurtis Chong	Independent Electricity System Operator	NPCC		2								
		5. Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC		1								
		6. Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC		1								
		7. Gerry Dunbar	Northeast Power Coordinating Council	NPCC		NA								
		8. Ben Eng	New York Power Authority	NPCC		4								
		9. Brian Evans-Mongeon	Utility Services	NPCC		8								
		10. Mike Garton	Dominion Resources Services, Inc.	NPCC		5								

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	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
11.	Brian L. Gooder	Ontario Power Generation Incorporated	NPCC				5							
12.	Kathleen Goodman	ISO - New England	NPCC				2							
13.	David Kiguel	Hydro One Networks Inc.	NPCC				1							
14.	Michael R. Lombardi	Northeast Utilities	NPCC				1							
15.	Randy MacDonald	New Brunswick System Operator	NPCC				2							
16.	Greg Mason	Dynegy Generation	NPCC				5							
17.	Bruce Metruck	New York Power Authority	NPCC				6							
18.	Chris Orzel	FPL Energy/NextEra Energy	NPCC				5							
19.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC				10							
20.	Robert Pellegrini	The United Illuminating Company	NPCC				1							
21.	Saurabh Saksena	National Grid	NPCC				1							
22.	Michael Schiavone	National Grid	NPCC				1							
23.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC				3							
3.	Group	Michael Gammon	Kansas City Power & Light	X		X		X	X					
		Additional Member	Additional Organization				Region	Segment Selection						
		1. Jennifer Flandermeyer	KCPL	SPP				1, 3, 5, 6						
		2. Scott Harris	KCPL	SPP				1, 3, 5, 6						
4.	Individual	Marc Gaudette	Dominion	X		X		X	X					
5.	Individual	Alison Mackellar - NERC Compliance Contact	Exelon Generation Company, LLC - Exelon Nuclear					X						
6.	Individual	Thomas Glock, Director Power Operations	Arizona Public Service Company	X		X		X		X	X			
7.	Individual	James H. Sorrels, Jr.	AEP	X		X		X	X					
8.	Individual	Greg Rowland	Duke Energy	X		X		X	X					

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		Commenter	Organization	Industry Segment									
				1	2	3	4	5	6	7	8	9	10
9.	Individual	Edward Davis	Entergy Services, Inc	X		X		X	X				
10.	Individual	James Sharpe	South Carolina Electric and Gas	X		X		X	X				
11.	Individual	Bill Keagle	BGE	X									

1. Do you agree with the proposed implementation plan(s) generally provide a reasonable timeframe for implementing NERC’s CIP Version 2 and Version 3 standards at nuclear power plants?

Summary Consideration: Most stakeholders who submitted comments agreed that the proposed implementation plans provide a reasonable timeframe for implementation of the CIP Version 2 and Version 3 standards at nuclear power plants and the drafting team did not make any changes to these plans.

Organization	Yes or No	Question 1 Comment
Northeast Power Coordinating Council		No comment.
Arizona Public Service Company	No	<p>The implementation plan draft requires implementation of cyber security plans, processes, and protocols and completion of related documentation for critical cyber assets (digital equipment) by no later than the first refueling outage at least 12 months beyond the FERC CIP effective date + 6 months. (So worst case 18 months after the effective date which may be May 2010). There is also a statement that "for multi-unit nuclear power plants, should separate outages be required to implement the plans, processes, and protocols for all units at the plant, the Responsible Entity shall indicate the need for separate outages in the self-certification report, including the time frame needed for implementation for each unit." As one of the newer nuclear plants, Palo Verde has a large number of digital systems. This will complicate the implementation process if only one outage is allowed per unit for implementation. In addition, outage scopes are determined based on the nuclear safety risk significance of work. Completion of the required work in one outage will either extend the duration of outages or result in the removal of nuclear safety significant work. The current implementation plan duration does not include consideration of mitigating aspects to critical cyber aspects (e.g. they are behind a data diode and have no other external connections). Determination of critical cyber asset vulnerabilities will require an outage to perform scans on equipment. In some cases, systems will have to be replaced or redesigned. This process can in some cases take two years (neglecting competing resource needs based on multiple systems needing changes at one time). Therefore, we request that the schedule for nuclear plants remain as the first refueling outage (more than 12 months after approval date) + 6 months for vulnerability assessment but that implementation completion for vulnerability assessment remediation be allowed to be performed based on a schedule that considers vulnerability mitigation measures (physical and electronic) such that the overall schedule does not exceed 60 months.</p>
<p>Response: The team appreciates your comments regarding the proposed implementation plans. Your concern is predicated upon the large number of digital systems at your plant, the existing mitigation strategies regarding those assets, and the impact on outage scheduling relative to the significance of the nuclear safety risk associated with the work. The team believes the proliferation of digital systems underscores the importance of ensuring critical infrastructure protection obligations that exist to protect and preserve the operation of not only the nuclear-related systems, but also for the reliable operation of the electric grid. Furthermore, the issues identified are not unique to the implementation of Version 2 and Version 3 of the</p>		

Organization	Yes or No	Question 1 Comment
<p>CIP standards, but are more generic to the structure of the implementation of the CIP standards at nuclear plants. These issues were discussed at length during the development of Version 1 of the implementation plan, just approved by FERC order on March 18, 2010, and supported by a significant number of your peers and by the electric utility industry at large. In addition, per that same FERC order, NERC is obliged to implement Version 2 and Version 3 on the same schedule as Version 1, unless there is compelling justification to offer a different date. Therefore, absent further support, the team believes it appropriate to continue to align the Version 2 and Version 3 implementation plan dates for CIP-003 through CIP-009 on the same course as the schedule for implementation of the Version 1 implementation plan. In this regard, the “R” date is now determined as November 18, 2011.</p>		
Kansas City Power & Light	No	The Memorandum of Understanding does not contain a clear delineation of the systems, structures, and components under NRC and NERC jurisdiction to render a judgment regarding an implementation time.
<p>Response: NERC has committed in its January 19, 2010 filing to complete its scope of systems determination by R+8 or by November 18, 2010, or as FERC directed in its March 18, 2010 Order, NERC will notify FERC if it is unable to meet that deadline. However, in either circumstance, the nuclear plant owner/operator has the benefit of an “adjustable” implementation plan that is tied to the date of the scope of systems determination. Recall in the proposed implementation timeframe the inclusion of the S+10 months. This provides that if the scope of systems determination exceeds the dates contemplated, the implementation timeframe would accordingly be adjusted. Note that NERC intends, as outlined in its January 19, 2010 filing, to make the scope of systems determination using its Bright-Line Test in a two part process. NERC will conduct workshops outlining its test followed by the documentation process. These workshops are intended to facilitate the development of a Bright-Line Survey and to communicate expectations for licensees’ completion of the survey. A preliminary Bright-Line Survey will be used as the starting point and will be presented at the workshops, subject to licensee modification based on their facility specific circumstances. The survey will be distributed following the workshop with expected completion in 30 days. NERC will verify the survey results beginning in June or July, 2010, utilizing site visits if necessary. A specific task-level project timeline was provided to accompany the NERC filing.</p>		
AEP	Yes	
BGE	Yes	
Duke Energy	Yes	
Entergy Services, Inc	Yes	
South Carolina Electric and Gas	Yes	
Bonneville Power Administration	Yes	BPA would like to propose that Version 3 does not become effective until mid-2011.
<p>Response: On current course as proposed herein and as discussed in the response to Arizona Public Service’s comments, the current earliest</p>		

Organization	Yes or No	Question 1 Comment
<p>implementation date for CIP Version 2 and Version 3 would be November, 2011.</p>		
<p>Dominion</p>	<p>Yes</p>	<p>Dominion considers the proposed implementation plan(s) generally provide a reasonable timeframe on the basis that the differences between CIP-002, Rev. 1 and CIP-002, Rev. 2 and Rev. 3 do not represent a significant change in the effort or schedule required for compliance.</p>
<p>Response: Thank you for your comments.</p>		
<p>Exelon Generation Company, LLC - Exelon Nuclear</p>	<p>Yes</p>	<p>Generally the proposed implementation plan(s) provide a reasonable timeframe; however, Exelon Nuclear has concerns regarding the timeline for compliance regarding the Scope of Systems Determination. Understanding that the timeframes for implementing NERC's CIP Versions 2 and 3 are the same as the Version 1 proposed implementation plan, the timeline for compliance lists the later of the following: i, § The FERC Effective Date plus 18 months; ii, § The Scope of Systems Determination plus 10 months; or, iii, § Six months following the completion of the first refueling outage (if applicable) at least 18 months following the FERC Effective Date. With respect to the Scope of Systems Determination plus 10 months, in its January 19, 2010 filing, NERC provided responses that detailed an ongoing process with the NRC for developing an in-scope system list to distinguish systems, structures and components ("SSCs") that fall under NERC's jurisdiction from those that fall under the NRC's jurisdiction. In answer to the question "whether the exemption process will include (i) an application deadline and (ii) a deadline for determination of an exemption request," NERC stated that, "the determination of a licensee's scope of systems to be exempted from compliance with the NERC CIP Reliability Standards must be made no later than R+8 months." NERC's response is somewhat problematic because it provides a specific time (R+8) assuming that its "Bright-Line management project plan" will be finalized prior to the date of FERC approval, and does not appear to allow any contingency for a delay in the Bright-Line determination. Without knowing for certain when NERC and the NRC will, in fact, finalize the Bright-Line determination, the formula R+8 months may not give licensees the full time intended. In addition, it is unclear how a licensee can know what systems to seek an exemption for prior to knowing what systems are subject to NERC jurisdiction under the Bright-Line determination.</p>
<p>Response: Thank you for your comments on the proposal. NERC has committed in its January 19, 2010 filing to complete its scope of systems determination by R+8 or by November 18, 2010, or as FERC directed in its March 18, 2010 Order, NERC will notify FERC if it is unable to meet that deadline. However, in either circumstance, the nuclear plant owner/operator has the benefit of an "adjustable" implementation plan that is tied to the date of the scope of systems determination. Recall in the proposed implementation timeframe the inclusion of the S+10 months. This provides that if the scope of systems determination exceeds the dates contemplated, the implementation timeframe would accordingly be adjusted. Note that NERC intends, as outlined in its January 19, 2010 filing, to make the scope of systems determination using its Bright-Line Test in a two part process. NERC will conduct workshops outlining its test followed by the documentation process. These workshops are intended to facilitate the development of a Bright-Line Survey and to communicate expectations for licensees' completion of the survey. A preliminary Bright-Line Survey will be used as the</p>		

Organization	Yes or No	Question 1 Comment
		<p>starting point and will be presented at the workshops, subject to licensee modification based on their facility specific circumstances. The survey will be distributed following the workshop with expected completion in 30 days. NERC will verify the survey results beginning in June or July, 2010, utilizing site visits if necessary. A specific task-level project timeline was provided to accompany the NERC filing. In sum, licensees will have a clear sense of the Bright-Line determination in the 2nd quarter, 2010, with individualized licensee responses expected on the survey within 30 days after survey release.</p>

2. Does the proposed implementation plan language satisfy the FERC directive relative to the implementation of CIP Version 2 and future versions of the CIP standards at U.S. nuclear power plants?

Summary Consideration: Most stakeholders who submitted comments agreed that the proposed implementation plan language satisfies the FERC directive relative to the implementation of CIP Version 2 and future versions of the CIP standards at U.S. nuclear power plants and the drafting team did not make any changes to the plans.

Organization	Yes or No	Question 2 Comment
Northeast Power Coordinating Council		No comment.
Exelon Generation Company, LLC - Exelon Nuclear	No	Exelon Nuclear agrees that the proposed implementation plan language satisfies the FERC directive relative to the implementation of CIP Versions 2 and 3. Exelon Nuclear does not see any documentation that satisfies the FERC directive that all future versions of the CIP Standards will address how owners and operators of nuclear power plants located in the United States will implement the revised CIP Standards. How does NERC intend to ensure that future modifications to CIP-002 through CIP-009 will be evaluated for impact against the current draft implementation plan(s) for nuclear generator owner/operators?
<p>Response: Any future modifications to the CIP standards, including that for Version 4, will include implementation details specific for nuclear plants. To do so, NERC will solicit the support of representatives from the nuclear generating community as part of the standard development process.</p>		
Kansas City Power & Light	No	The Memorandum of Understanding does not contain a clear delineation of the systems, structures, and components under NRC and NERC jurisdiction to render a judgment regarding FERC satisfaction.
<p>Response: NERC has committed in its January 19, 2010 filing to complete its scope of systems determination by R+8 or by November 18, 2010, or as FERC directed in its March 18, 2010 Order, NERC will notify FERC if it is unable to meet that deadline. However, in either circumstance, the nuclear plant owner/operator has the benefit of an “adjustable” implementation plan that is tied to the date of the scope of systems determination. Recall in the proposed implementation timeframe the inclusion of the S+10 months. This provides that if the scope of systems determination exceeds the dates contemplated, the implementation timeframe would accordingly be adjusted. Note that NERC intends, as outlined in its January 19, 2010 filing, to make the scope of systems determination using its Bright-Line Test in a two part process. NERC will conduct workshops outlining its test followed by the documentation process. These workshops are intended to facilitate the development of a Bright-Line Survey and to communicate expectations for licensees’ completion of the survey. A preliminary Bright-Line Survey will be used as the starting point and will be presented at the workshops, subject to licensee modification based on their facility specific circumstances. The survey will be distributed following the workshop with expected completion in 30 days. NERC will verify the survey results beginning in June or July, 2010, utilizing site visits if necessary. A specific task-level</p>		

Organization	Yes or No	Question 2 Comment
project timeline was provided to accompany the NERC filing.		
AEP	Yes	
BGE	Yes	
Bonneville Power Administration	Yes	
Duke Energy	Yes	
Entergy Services, Inc	Yes	
South Carolina Electric and Gas	Yes	
Dominion	Yes	No comments.