NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments on 1st Draft of Protection System Maintenance and Testing SAR (Project 2007-17)

The Protection System Maintenance and Testing SAR requesters thank all commenters who submitted comments on the first draft of SAR. This SAR was posted for a 30-day public comment period from June 11 through July 10, 2007. The requesters asked stakeholders to provide feedback on the standard through a special SAR Comment Form. There were 18 sets of comments, including comments from 85 different people from more than 50 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

The SAR drafting team made no changes to the SAR based on stakeholder comments.

Based on the comments received, the drafting team is recommending that the Standards Committee authorize moving the SAR forward to the standard drafting stage of the standards development process.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Protection_System_Maintenance_Project_2007-17.html

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 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.

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.	Anita Lee (G6)	AESO		✓								
2.	Jay Farrington (G2)	Alabama Electric Coop., Inc.	✓									
3.	Ken Goldsmith (G5)	ALT										✓
4.	Robert Rauschenbach (G2)	Ameren	✓									
5.	Thad Kness	American Electric Power (AEP)	✓				✓	✓				
6.	Dave Rudolph (G4)	BEPC										✓
7.	Dean Bender	Bonneville Power Administration (BPA)	✓		✓		✓	✓				
8.	Brent Kingsford (G6)	CAISO		✓								
9.	Alan Gale	City of Tallahassee (FRCC)					✓					
10.	Glen McCartney (G4)	Constellation Energy						✓				
11.	Michael Gildea (G4)	Constellation Energy						✓				
12.	Nancy C. Denton	Consumers Energy Company			✓	✓						
13.	Greg Rowland	Duke Energy										
14.	Tom Seeley (G2)	E. ON-U.S.	✓									
15.	Charlie Fink (G2)	Entergy	✓									
16.	Jammie Lee (G2)	Entergy	✓									
17.	Steve Myers (G6)	ERCOT		✓								
18.	Doug Hohlbaugh (G7)	FirstEnergy Corp. (FE)	✓		✓		✓	✓				
19.	Craig Boyle (G7)	Transm. Substa.	✓									

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
		Maintenance (FE)										
20.	Ken Ddresner (G7)	Fossil Generation (FE)					✓					
21.	Bill Duge (G7)	Nuclear Generation (FE)					✓					
22.	Dave Powell (G7)	Transm. Planning & Protection (FE)	✓									
23.	Jeff Mackauer(G7)	Transm. Planning & Protection (FE)	✓									
24.	Eric Senkowizc	FRCC		✓								
25.	Phil Winston (G3)	Georgia Power Company			✓							
26.	Steve Waldrep (G2)	Georgia Power Company	✓									
27.	Phil Winston (G2)	Georgia Power Company	✓									
28.	Hong-Ming Shuh (G2)	Georgia Transmission Corp.	✓									
29.	Neal Jones (G2)	Georgia Transmission Corp.	✓									
30.	David Kiguel (G4)	Hydro One Networks	✓									
31.	Ron Falsetti (I) (G6)	IESO		✓								
32.	Matt Goldberg (G6)	ISO- New England		✓								
33.	Kathleen Goodman (G4)	ISO-New England		✓								
34.	William Shemley (G4)	ISO-New England		✓								
35.	Eric Ruskamp (G4)	LES										✓
36.	Donald Nelson (G4)	MADPC									✓	
37.	Tony Clark	Manitoba Hydro	✓		✓		✓	✓				
38.	Tom Mielnik (G4)	MEC										✓
39.	Robert Coish (G5)	MHEB										✓
40.	Joe Knight (G5)	Midwest Reliability Organization										✓
41.	Mike Brytowski (G4)	Midwest Reliability Organization										✓
42.	Terry Bilke (G5)	MISO										✓
43.	William Phillips (G6)	MISO		✓								
44.	Carol Gerou (G5)	Minnesota Power (MP)										✓
45.	Ernesto Paon (G2)	Municipal Electric Authority of GA	✓									
46.	Michael Shiavone (G4)	National Grid US	✓									

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
47.	Greg Campoli (G4)	New York ISO		✓								
48.	Ralph Rufrano (G4)	New York Power Authority	✓									
49.	Murale Gopinathan (G4)	Northeast Utilities	✓									
50.	Guy V. Zito (G4)	NPCC										✓
51.	Al Adamson (G4)	NY State Reliability Council										✓
52.	Jim Castle (G6)	NYISO		✓								
53.	Richard Kafka (G8)	Pepco Holdings, Inc.										
54.	Alicia Daugherty (G6)	PJM		✓								
55.	Jerry Blackley (G2)	Progress Energy Carolinas	✓									
56.	Phil Riley (G1)	PSC of South Carolina									✓	
57.	Mignon L. Clyburn (G1)	PSC of South Carolina									✓	
58.	Elizabeth B. Fleming (G1)	PSC of South Carolina									✓	
59.	G. O'Neal Hamilton (G1)	PSC of South Carolina									✓	
60.	John E. Howard (G1)	PSC of South Carolina									✓	
61.	Randy Mitchell (G1)	PSC of South Carolina									✓	
62.	C. Robert Moseley (G1)	PSC of South Carolina									✓	
63.	David A. Wright (G1)	PSC of South Carolina									✓	
64.	Mike Gentry	Salt River Project (SRP)	✓									
65.	Bridget Coffman (G2)	SC Public Service Authority	✓									
66.	Pat Huntley (G2)	SERC Reliability Corp.										✓
67.	Roman Carter (G3)	So. Company Transmission	✓									
68.	Marc Butts (G3)	So. Company Transmission	✓									
69.	JT Wood (G3)	So. Company Transmission	✓									
70.	Jim Busbin (G3)	So. Company Transmission	✓									
71.	Marion Frick (G2)	South Carolina Electric & Gas Co.	✓									

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
72.	Charles Yeung (G6)	Southwest Power Pool		✓								
73.	E. William Riley	Southwest Transmission Co., Inc.	✓									
74.	Tom D. Spence	Southwest Transmission Co., Inc.	✓									
75.	George Pitts (G2)	Tennessee Valley Authority	✓									
76.	Meyer Kao (G2)	Tennessee Valley Authority	✓									
77.	Ron Falsetti (G4) (G6)	The IESO		✓								
78.	Roger Champagne (G4)(I)	TransÉnergie Hydro-Québec (HQTE)	✓									
79.	Jim Haigh (G4)	WAPA										✓
80.	Neal Balu (G5)	WPS										✓
81.	Pam Oreschnick (G4)	XEL										✓
82.	Carl Kinsley (G8)	Delmarva Power & Light	✓									
83.	Alvin Depew (G8)	Potomac Electric Power Company	✓									
84.	Evan Sage (G8)	Potomac Electric Power Company	✓									

I – Indicates that individual comments were submitted in addition to comments submitted as part of a group
G1 – Public Service Commission of South Carolina (PSC SC)
G2 – SERC EC Protection & Control Subcommittee (SERC EC PCS)
G3 – Southern Company Transmission
G4 – NPCC CP9 Reliability Standards Working Group (NPCC CP9 RSWG)
G5 – MRO Members (MRO)
G6 – IRC Standards Review Committee (IRC)
G7 – FirstEnergy Corp. (FE)
G8 – Pepco Holdings, Inc.

Index to Questions, Comments, and Responses

1. Do you agree that there is a reliability-related need to improve the requirements in this standard?

Summary Consideration: Most commentators indicated they do believe there is a reliability-related need to improve the requirements in this set of standards.

Question #1			
Commenter	**Yes**	**No**	**Comment**
AEP		☑	AEP has not had an event, due to deficiencies in protection maintenance, in it's long existence that jeopardized the reliability or availability of Bulk Power transfers. Simply combining multiple standards into one, does nothing for improving reliability.
Response: The proposed changes will improve clarity which should benefit reliability. While AEP may have an excellent record of maintenance, the existing standards are quite vague and allow an entity that performs maintenance once every 100 years to be fully compliant.			
Manitoba Hydro		☑	There is a need to better define and explain the terms "maintenance" and "testing" as they relate to this standard. Also a tighter definition as to which systems are considered to affect the BES is required. The need to improve the standard is driven by the administration of the standard rather than reliability.
Response: As envisioned, the SDT will work with stake holders to define the terms 'maintenance' and 'testing.' The SAR DT disagrees that the standard changes are driven by "administration". The existing requirements are vague enough to allow an entity to perform maintenance once every 100 years and still be compliant.			
SWTC	☑		This SAR proposes to revise several standards to eliminate ambiguities and to provide requirements that are measurable. In addition, the SPCTF report "Assessment of PRC-005-1 – Transmission and Generation Protection System Maintenance and Testing; with implications for PRC-008-0, PRC-011-0, and PRC-017-0" indicates the need to differentiate between the different technologies used and insure the standard applies to all in the appropriate way (i.e. electro-mechanicals, microprocessor-based, solid-state). Southwest Transmission Cooperative, Inc. also recognizes this deficit in the existing standards.
Response: The SAR DT agrees and appreciates your support.			
SERC EC PCS	☑		Consolidation of the maintenance and testing standards is appropriate. Separate definitions for maintenance and testing are needed.
Response: The SAR DT agrees and appreciates your support.			
FRCC	☑		Centralizing System Protection equipment maintenance and testing requirements in a single standard will add clarity, minimize synchronization issues across standards, help provide consistent terminology and improve understanding of system protection standards.
Response: The SAR DT agrees and appreciates your support.			

Question #1			
Commenter	**Yes**	**No**	**Comment**
PSC SC	☑		
BPA	☑		
Consumers Energy	☑		
IESO	☑		
SRP	☑		
SOCO Transmission	☑		
NPCC CP9 RSWG	☑		
MRO	☑		
IRC	☑		
FirstEnergy	☑		
HQT	☑		
Pepco Holdings	☑		
Duke Energy	☑		

2. Do you agree with the proposed scope of this SAR?

Summary Consideration: Some entities objected to the use of 'maximum allowable intervals,' however, FERC has ordered that maximum allowable intervals be developed. No changes to the SAR were made in response to these comments.

Question #2			
Commenter	**Yes**	**No**	**Comment**
AEP		☑	On the surface, the premise of reducing costs and improving efficiencies by combining multiple standards sounds excellent. Having to only keep up with one standard instead of four will not generate significant savings due to the fact that the maintenance will still have to be performed. But what lies hidden, is the fact that prescribed maximum allowable maintenance intervals will result from the revisions. They may require more frequent testing to be performed. Is there evidence that increasing the interval frequency results in a measurable increase in reliability and availability? Development of prescribed maximum intervals that are vastly different than the utility's existing practices may actual increase their O&M costs and reduce efficiencies. The function of the protective system needs to be taken into account. The purpose of the line protection is very different than the purpose of UFLS/UVLS and SPS's. The UFLS program is there as the last line of defense against a decaying system after all other measures have failed. The combination of all the different relaying systems places them on equal ground. Shouldn't the reliability and dependability for one be more important than the others?
Response: In order to develop a measurable standard and conform to the direction from FERC regarding allowable maintenance intervals, the SDT, working with stakeholders, will develop requirements for maximum allowable maintenance intervals for protection systems. Combining these 4 standards into 1 does not preclude the SDT from developing different criteria for different types of protection systems. Your concerns regarding the different purposes of protection systems and your question regarding varying importance of different protection systems will be forwarded to the SDT.			
Manitoba Hydro		☑	We disagree that there is a need to change the standard to include more specificity for maintenance and test procedures. We also disagree with mandating minimum maintenance intervals for protection system equipment.
Response: FERC has directed NERC as the ERO to specify maximum allowable maintenance intervals.			
Duke Energy		☑	Combining PRC-005, 008, 011 and 017 into one new standard does not seem to be the best approach. Duke Energy does not have UVLS systems or Special Protection Systems. Furthermore, Duke Energy's Underfrequency Load Shedding system is on the transmission system in the Carolinas, but on the distribution system in the Midwest.

Question #2			
Commenter	**Yes**	**No**	**Comment**
			Combining these standards would likely create confusion and compliance issues for us and others as well. Also, combining the standards is unlikely to result in simplification, as different requirements associated with the different protection systems could have different Violation Risk Factors and levels of non-compliance, which would necessitate keeping them separate in the combined standard, which would defeat the purpose of combining them in the first place.
Response: Combining these 4 standards into 1 does not preclude the SDT from developing different criteria for different types of protection systems (concerns about different voltage levels remain regardless if there is one standard or more than one).			
SWTC	☑		Since most protection schemes are maintained and tested in a similar manner regardless of scheme type, we agree that combining the (4) PRC standards related to maintenance and testing of different types of systems into one standard will create a that is more streamlined and less burdensome standard with easily understood measurable compliance elements. The most exciting part of the proposed modifications is the inclusion of condition-based and performance-based maintenance and testing and not just time-based criteria. Presently Southwest Transmission Cooperative, Inc. uses this type of maintenance and testing criteria (maintenance data server) which is the current system protection industry technology.
Response: Thank you for your support.			
FirstEnergy	☑		Bullet #5 of the "Detailed Description" on page SAR-2 indicates the following: "Applicable to all four standards — The requirements of the existing standards, as stated, support time-based maintenance and testing, and should be expanded to include condition-based and performance-based maintenance and testing. The requirements for maintenance and testing procedures need to have more specificity to insure that the stated intent of the standards is met to support review by the compliance monitor." FE supports the scope of the SAR to consider adding the ability for condition-based and performance-based testing, as suggested by the System Protection and Control Task Force. Additionally, the SDT should consider the need to perform some level of preventative maintenance on a periodic basis at an established maximum interval length, that would vary per the equipment being maintained. The interval established would be based on established guidelines from vendors, EPRI, industry experts, etc.

Question #2			
Commenter	**Yes**	**No**	**Comment**
Response: Thank you- The SDT will develop maximum allowable maintenance intervals for protection systems, working with stakeholders.			
FRCC	☑	☑	Use of subject matter experts (NERC SPCTF) along with the NERC Planning Committee review of the assessment is an effective and efficient way to supplement project SARs and provides critical input at the front-end of the standards process. Attachment A is described as the SPCTF assessment, but attachment A to the SAR is the SPCTF roster. The assessment referenced in the scope of the SAR should include "Draft 1.0" if the full assessment is not included as part of the SAR.
Response: The attachments and supporting material references will be posted.			
PSC SC	☑		
SERC EC PCS	☑		
BPA	☑		
Consumers Energy	☑		
IESO	☑		
SRP	☑		
SOCO Transmission	☑		
NPCC CP9 RSWG	☑		
MRO	☑		
IRC	☑		
HQT	☑		
Pepco Holdings	☑		

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Summary Consideration: Based on comments received no changes were made to the SAR

Question #3			
Commenter	**Yes**	**No**	**Comment**
FRCC			This question may be better addressed as the standards are integrated.
Response: The SAR DT is obligated to address the applicability,			
MRO		☑	FERC Order 693 in both paragraph 1466 and in footnote 384, indicates that in some areas of the country, Load Serving Entities (LSE) and Transmission Operators (TOP) may individually or jointly own and operate a protection system. Thus, these additional entities should be subject to the resulting consolidated standard. The MRO believes that the following caveat should be added to the LSE where it is listed as an Applicable Entity, (where operation of the protection system can affect the Bulk Electric System). 2. The MRO requests that the SDT review whether or not the Reliability Coordinator (RC) should be added to the list of Applicable Entities given their wide area view-for example, the RC may need to be involved in determining which protection systems below 100kV will affect the BES.
Response: FERC Order 693 in both paragraph 1466 and in footnote 384 reiterates IESO-NE comments on the NOPPR. The FERC directive was to consider this comment. According to the NERC Functional Model, Load-serving Entities, Transmission Operators and Reliability Coordinators are not owners of protection systems – and the entity responsible for maintenance is the facility owner.			
NPCC CP9 RSWG HQT	☑	☑	Each requirement needs to specifically address what protection systems need to comply with the standard - i.e. a generator not connected to the BPS with under frequency trip relay should only be subject to under frequency relay maintenance requirements.
Response: Your comment will be referred to the SDT for consideration when convened.			
FirstEnergy	☑		The inclusion of the Distribution Provider is generally needed for UFLS and UVLS relays. The confusion that previously existed in PRC-005 by including the DP entity should be mitigated by the proposed consolidation of the four maintenance standards.
Response: Thank you for your comment.			
PSC SC	☑		
SERC EC PCS	☑		
AEP	☑		
BPA	☑		

Question #3			
Commenter	**Yes**	**No**	**Comment**
Consumers Energy	☑		
IESO	☑		
SRP	☑		
SOCO Transmission	☑		
SWTC	☑		
IRC	☑		
Pepco Holdings	☑		
Duke Energy	☑		

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Summary Consideration: No regional variances were identified by the commentators

Question #4		
Commenter	**Regional Variance**	**Comment**
NPCC CP9 RSWG	None	Certain unavoidable delays like the inability to schedule outages for reliability reasons or labor disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude, with the "appropriate approvals", needs to be provided for delays in the testing process.
Response: This is a compliance issue not a regional variance – The compliance enforcement program does give the compliance monitor latitude to consider extenuating circumstances.		
PSC SC	N/A	
SERC EC PCS	None	
AEP	None	
BPA	No known regional variance.	
Consumers Energy	N/A	
SWTC	N/A	Not aware of any Regional Variance requirements.
MRO	None	
FirstEnergy		Not aware of any.
HQT	None	

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Summary Consideration: No needs for development of Business Practices were identified by the commentators.

Question #5		
Commenter	**Business Practice**	**Comment**
AEP	Possibly	AEP and other utilities, with many years of experience serving customers and supporting the electric grid, have voluntarily integrated maintenance and testing programs into the core of their work practices and processes. AEP fully supports improvements if they truly foster reliability and availability benefits to bulk power transfers. More Standards, Requirements and Business Practices are not always better. If Standards create burdens on a utility's physical resources and budgets, then some mechanism must be available to allow for the needed changes.
Response: Please monitor the work of the SDT and advise the team if added burdens are created by any of the proposed requirement and advise the team of the need for any business practice or other mechanism necessary to support the proposed requirements.		
PSC SC	N/A	
SERC EC PCS	None	
Consumers Energy	N/A	
SWTC	N/A	Not aware of any Business Practice needs.
NPCC CP9 RSWG	None that we know of.	
MRO	None	
IRC	None	
FirstEnergy		Not aware of any.
HQT		None that we know of.

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Question #6	
Commenter	**Comment**
SERC EC PCS	The SERC EC PCS supports the work of the NERC SPCTF in their assessments of these standards.
Response: Thank you for your support	
AEP	The standard should not use the term Bulk Electric System, but should instead specify a voltage threshold for impacts to bulk system transfers - specifically; 'Facilities operated 200 kV and above and Regionally-defined, Operationally Significant facilities operated greater than 100 kV, but less than 199 kV'. The term 'affects' also needs to be clarified. Inclusion of all facilities greater than 100 kV does not benefit the reliability of national bulk power transfers. For example, the loss or misoperation of a 138 kV line serving a localized load center would not be detrimental to bulk power transfers multiple busses away.
Response: Your comment will be referred to the drafting team when convened for consideration when drafting the standard.	
BPA	In the "Detailed Description" section of the SAR, it states: "Part of the stated purpose in PRC-017 is: "To ensure that maintenance and testing programs are developed and misoperations are analyzed and corrected." The phrase "and misoperations are analyzed and corrected" is not clearly appropriate in a maintenance and testing standard. That is the purpose is more appropriate in PRC-003 and PRC-004, which relate to the analysis and mitigation of protection system misoperations. Analysis of correct operations or misoperations may be an integral part of condition-based maintenance processes, but need not be mandated in a maintenance standard." The analysis of SPS misoperations is handled in PRC-016 (SPS Misoperations) and PRC 012 (SPS review Procedure) not in PRC-003 or PRC-004. Therefore, if the phrase is removed from PRC-017, it does not need to be added to PRC-003 or PRC-004.
Response: We agree. Please see the purpose statement as stated in the SAR.	
SOCO Transmission	In the SAR you state "The revised PRC-005 standard should address the issues raised in the FERC Order 693". With the exception of mentioning the consolidation of the standards into one standard, the SAR drafting team didn't provide readers with the exact language from FERC that would be useful to know with respect to PRC-005 in the directive below: The Commission directs the ERO to develop a modification to PRC-005-1 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System. We further direct the ERO to consider FirstEnergy's and ISO-NE's suggestion to combine PRC-005-1, PRC-008-0,

Question #6	
Commenter	**Comment**
	PRC-011-0 and PRC-017-0 into a single Reliability Standard through the Reliability Standards development process.
Response: The SAR DT Agrees – the SAR DT will make sure that all appropriate documents are included in its next posting of the SAR.	
MRO	1. The MRO commends NERC and the SDT for taking steps to remove some of the redundancy that currently exists among many of the standards today. The consolidation of the protection system maintenance and testing standards is a good first step. 2. The MRO requests that the following be considered during the initial drafting of the Requirements for this new protection and maintenance standard. A minimum set of evidence to be included in a maintenance and testing program should be established in the measures for R1.2. 3. In the SPCTF Assessment of PRC-005-1, PRC-008-0, PRC-011-0, and PRC-017-0, the clarification for R2 states that documentation is available to its Regional Reliability Organization and NERC during audits or upon request within 30 days but paragraph 1545 of FERC Order 693 states "be routinely provided to the ERO or Regional Entity and not only when it is requested." The MRO believes that the FERC request would be satisfied if the standard were to state: "the applicable entities shall provide testing records to the Regional Entity on a periodic basis e.g. (annually). 4. In the event that the SAR DT does not become the SDT, the MRO requests that these comments be forwarded on to the group that will do tha actual drafting of the Standard.
Response: The SAR DT will forward your comments to the SDT for consideration as required by the process	
IRC IESO	1. The SRC (IESO) commends NERC, the SDT and the SPCTF for providing clarity and for efforts to reduce the costs of compliance. 2 In the Standard PRC-008-0, Generation Owners were not included in the applicable entities. Generation Owners may have underfrequency tripping devices for protection of their units. It would be appropriate to include these devices for maintenance and testing requirements also. 3. Further, there is need to specify which types of relays will be covered by the new standard. The SAR Team needs to focus on better defining the Generator Protection Schemes ("GPS") that are critical to bulk power system operation, as distinct from generator operation. For example, a single generating unit may experience contingency events that would not result in any significant adverse impacts outside the local area in which the single generating unit is located. As a result, there remains a need to subject those GPSs that are important to the Bulk Power System, such as generator underfrequency trip settings, to the maintenance testing intervals to be derived in these standards. 4. Certain unavoidable delays like the inability to schedule outages for reliability reasons, labor

Question #6	
Commenter	**Comment**
	disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude needs to be provided for delays in the testing process. 5. However, the SAR team needs to also consider, as part of its scope, assurance that the asset owner has taken all appropriate steps to assure that required outages are appropriately planned and can be reasonably accommodated and approved by the TOP or RC.
Response: 1.Thank you **2.** Generator owners are included in the SAR **3.** This comment will be forwarded to the SDT **4.** The compliance enforcement program does give the compliance monitor latitude to consider extenuating circumstances. **5.** There are other standards that require coordination of comments	
FRCC	There are many standards being addressed (Disturbance Monitoring, System Protection Coordination, Reliability Coordination, along with Regional standard developments). As these standards are integrated into PRC-005, the existing and new terminology should be consistently applied in all system protection standards (with respect to defined terms). Where terms are undefined or being revised, the drafting team should carefully consider the terms used to ensure coordination of revised or new definitions with other Reliability standards or flag conflicts within the implementation plan.
Response: Thank you for your comment, your observation will be forwarded to the SDT for consideration.	
NPCC CP9 RSWG HQT	Due consideration should be given to potential difficulties in obtaining required outages. System reliability concerns may preclude performing maintenance at the intervals required. Certain unavoidable delays like the inability to schedule outages for reliability reasons, labor disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude needs to be provided, with "appropriate" approvals, for delays in the testing process. There is need to specify which types of relays will be covered by the new standard. The SAR Team needs to focus on better defining the Generator Protection Schemes ("GPS") that would be subject to this Standard – i.e., what subset of GPS are critical to bulk power system operation, as distinct from generator operation. For example, typically there is no single generating unit that would, if a contingency event occurs on that generating unit, result in significant adverse impacts outside of the local area in which the single generating unit is located. As a result, if these NERC Standards are to apply to all NERC-registered Generators, only a subset of the GPS need to be subjected to the maintenance testing intervals.
Response: 1. The compliance enforcement program does give the compliance monitor latitude to consider extenuating circumstances.	

Question #6	
Commenter	**Comment**
2 Your second comment will be forwarded to the SDT for consideration	
Manitoba Hydro	Manitoba Hydro takes exception to the prescriptive nature of the proposed changes to the maintenance procedures and maintenance intervals. The type of maintenance performed and the minimum maintenance intervals should be determined by the utility within the operating context of the protection system. There is no need for the standard to reflect the inherent difference between various protection system technologies as the utility would account for differences within their stated maintenance practices.
Response: The proposed changes will improve clarity which should benefit reliability. While Manitoba Hydro may have an excellent record of maintenance, the existing standards are quite vague and allow an entity that performs maintenance once every 100 years to be fully compliant.	
Pepco Holdings	This SAR will bring needed coherence to what are now several related standards.
Response: Thank you	
SRP	None.
PSC SC	N/A
Consumers Energy	None.
SWTC	N/A
FirstEnergy	None.