

**Working Group D-1  
Meeting Minutes  
San Francisco, CA.  
April 7, 2008**

*Working Group Chair – Hamid Sharifnia  
Vice Chair – Robert (Bob) Nowell  
Secretary – Joseph (Joe) Bell*

<b>Attendee's Name</b>	<b>Company</b>	<b>Member</b>	<b>Guest</b>
Hamid Sharifnia (Chair)	PacifiCorp	<b>x</b>	
Robert (Bob) Nowell (Vice-Chair)	Southern Company	<b>x</b>	
Joe Bell (Secretary)	PacifiCorp	<b>x</b>	
Hanna Abdallah	Arizona Public Service	<b>x</b>	
Ken Aldridge	R.W. Beck		<b>x</b>
Radoslav Barac	General Electric Co.	<b>x</b>	
Romulus Berzescu	Sargent & Lundy		<b>x</b>
James Brian Cain	Stanley Group		<b>x</b>
Gary Engmann	Burns & McDonnell	<b>x</b>	
Tran Giang	Entergy		<b>x</b>
Matt Guarneri	Baltimore Gas & Electric		<b>x</b>
Charles Haahr	Sega, Inc.		<b>x</b>
Dave Kelley	Salt River Project	<b>x</b>	
Ted Orrel	Utility Technology Engineering Consultants		<b>x</b>
Fred Randolph	First Energy Corp.		<b>x</b>
Donald R. Rogers	Bechtel	<b>x</b>	
Boris Shvartsberg	General Electric Co.	<b>x</b>	
Ryan Stargel	TVA		<b>x</b>
Brian Stephens	Ameren	<b>x</b>	
Brian Story	Entergy		<b>x</b>
Brian Wallace	Salt River Project		<b>x</b>
Ken White	Black & Veatch	<b>x</b>	
Alexander Wong	HydroOne		<b>x</b>
Roland Youngberg	Mid-American	<b>x</b>	

Hamid called the meeting to order with 11 working group members and 13 guests in attendance.

The 2007 Nashville meeting minutes were reviewed and approved.

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The “Recommended Minimum Clearance” tutorial was presented on Sunday, April 5<sup>th</sup>. Hamid was pleased to announce that 23 of the 24 people who signed up for the tutorial attended. It is requested and hoped, that those who attended the tutorial, will take some time to provide feed back to Hamid. The presenters are interested in knowing what you liked about the information provided and also what you think may be needed or added to improve the presentation.

Hamid provided a brief outline of the tutorial presented by himself, Hanna Abdallah, Mike Noori and Ken White. Hamid, Ken, and Hanna each provided an overview of their portion of the presentation. Unfortunately Mike Noori was not present to provide his portion of the tutorial which covered the NESC clearances.

One item that stood out during Ken’s overview discussion was the fact that there are entities that have energized substations at a higher voltage than what the substation was originally designed for, i.e. a 138kV substation designed for sea-level clearances was energized at 230kV without any adverse consequences.

The discussion regarding clearance issues ensued with some attendees citing examples of the experiences gained and the solutions their company’s arrived at to address their particular clearance issues.

Gary Engmann stated that the BSL values shown in the NESC were less than the values provided in the 1427 standard. It appears that the BSL values in both the NESC and the 1427 standard start out the same, but then at some point the values increase in the NESC document as compared to the same level in the 1427. No one seems to know exactly why this occurs or as to where the NESC values originated from. Adding further confusion to the clearance difference issue, Gary stated that the BIL values in both documents match each other.

Gary further indicated that there is also a conflict between the PC37.301 document and the 1427 standard. It is believed that the phase to phase clearances listed in the PC37.301 are more conservative than those found in the 1427 standard.

Gary also believes that there is a need to look into developing a recommendation for UHV clearances. Gary has volunteered to look into this, but only for A/C.

A recommendation was made to send a copy of the clearance tutorial to other working groups and to also offer it at the 2009 meeting in Kansas City. It was agreed that this was a good idea and will be taken under advisement.

Before the meeting was adjourned, members and guests were reminded that many of our senior members are looking to retire and/or step down from their present working group duties. It should come as no surprise that a small number of the working group members perform a large part of the needed and important work the various working groups do. It is hoped that some of the newer members in attendance will think seriously about becoming active members to this

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working group or for that matter, any of the other working groups. There will always be an opportunity to join a committee, but the opportunity to work with and take advantage of the knowledge and experiences available from the senior members will not be.

**ACTION ITEMS:**

**Ken White** – Ken is to draft a proposal to have the NESC change the clearance values in their document to match the values listed in the 1427 standard.

Draft document is due May 1, 2008

**Gary Engmann** - Gary will look into the UHV recommended clearance question and present his finding at the October working group meeting in Nashville, TN.

Meeting Date has not yet been confirmed.

**Alexander Wong** - Alex has agreed to review any revised documents the committee provides him. He has agreed to return comments in the required time specified.

Due dates will be document specific.

The meeting was adjourned at approximately 2:50p.m.

Next working group meeting is to be in Nashville. Exact dates are to be announced.

Respectfully submitted,

Joe Bell  
WGD1 Secretary