



PC57.12.53 Working-Group

STNP - Guide for Mitigating Corrosion on Subsurface Transformers and Network Protectors

Fall 2024 Meeting

St Louis, Missouri

October 29th 2024

STNP CORROSION WORKING GROUP – *FALL 2024 MEETING*

Fall 2024 Meeting Agenda

1. Initial Tasks (15 minutes)
 - a) Call to Order
 - b) Meeting Introductions (8 minutes)
 - c) Call for Patent Claims & Copyright Notice (2 minutes)
 - d) Review/Approval of Fall 2023 Meeting Minutes (3 minutes)
 - e) Review/Approval of Fall 2024 Meeting Agenda (2 minutes)
2. Taskforce Recommendations (50 minutes)
 - Review of the taskforce's recommended changes to the draft document.
 - The WG will approve, revise, or reject each recommended revision to the draft.
3. Discussion of Next Steps (10 minutes)
 - Discussion of further changes to the draft
 - Formation of taskforce(s) to address any proposed changes
 - Motion to Ballot?

INSTRUCTIONS FOR THE WG CHAIR

The IEEE SA strongly recommends that at each WG meeting the chair or a designee:

- Show slides 1 through 4 of this presentation
- Advise the WG attendees that:
 - IEEE's patent policy is described in Clause 6 of the *IEEE SA Standards Board Bylaws*;
 - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
 - There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- Instruct the WG Secretary to record in the minutes of the relevant WG meeting:
 - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
 - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
 - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
- The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
- It is recommended that the WG Chair review the guidance in *IEEE SA Standards Board Operations Manual* 6.3.5 and in FAQs 14 and 15 on inclusion of potential Essential Patent Claims by incorporation or by reference.

Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE SA Standards Board.

PARTICIPANTS HAVE A DUTY TO INFORM THE IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

**Early identification of holders of potential
Essential Patent Claims is encouraged**

WAYS TO INFORM IEEE

- Cause an LOA to be submitted to the IEEE SA (patcom@ieee.org); or
- Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

OTHER GUIDELINES FOR IEEE WORKING GROUP MEETINGS

- All IEEE SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
 - Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
 - Don't discuss specific license rates, terms, or conditions.
 - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - Technical considerations remain the primary focus.
 - Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
 - Don't discuss the status or substance of ongoing or threatened litigation.
 - Don't be silent if inappropriate topics are discussed. Formally object to the discussion immediately.

For more details, see *IEEE SA Standards Board Operations Manual*, clause 5.3.10 and *Antitrust and Competition Policy: What You Need to Know* at <http://standards.ieee.org/develop/policies/antitrust.pdf>

PATENT-RELATED INFORMATION

The patent policy and the procedures used to execute that policy are documented in the:

- ***IEEE SA Standards Board Bylaws***
(<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
- ***IEEE SA Standards Board Operations Manual***
(<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)

Material about the patent policy is available at
<http://standards.ieee.org/about/sasb/patcom/materials.html>

**If you have questions, contact the IEEE SA
Standards Board Patent Committee
Administrator at patcom@ieee.org**

IEEE SA COPYRIGHT POLICY

- By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.
 - Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
 - Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.
 - For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA COPYRIGHT POLICY

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual
- IEEE SA Copyright Policy, see
Clause 7 of the IEEE SA Standards Board Bylaws
<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>
Clause 6.1 of the IEEE SA Standards Board Operations Manual
<https://standards.ieee.org/about/policies/opman/sect6.html>
- IEEE SA Copyright Permission
- <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip>
- IEEE SA Copyright FAQs
- <http://standards.ieee.org/faqs/copyrights.html/>
- IEEE SA Best Practices for IEEE Standards Development
- http://standards.ieee.org/develop/policies/best_practices_for_ieee_standards_development_051215.pdf
- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
- <https://standards.ieee.org/about/policies/opman/sect6.html>

Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

- All participants in IEEE-SA activities are expected to adhere to the core principles underlying the:
 - [IEEE Code of Ethics](#)
 - [IEEE Code of Conduct](#)
- The core principles of the IEEE Codes of Ethics & Conduct are to:
 - *Uphold the highest standards of integrity, responsible behavior, and ethical and professional conduct*
 - *Treat people fairly and with respect, to not engage in harassment, discrimination, or retaliation, and to protect people's privacy.*
 - *Avoid injuring others, their property, reputation, or employment by false or malicious action*
- The most recent versions of these Codes are available at <http://www.ieee.org/about/corporate/governance>

Participants in the IEEE-SA “*individual process*” shall act independently of others, including employers

- The [IEEE-SA Standards Board Bylaws](#) require that “*participants in the IEEE standards development individual process shall act based on their qualifications and experience*”
- This means participants:
 - **Shall act & vote** based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
 - **Shall not act or vote** based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
 - **Shall not direct** the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions
- By participating in standards activities using the “*individual process*”, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation

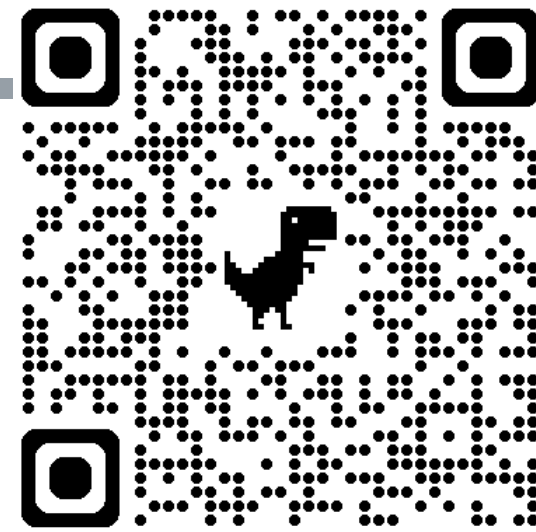
IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints

- The [IEEE-SA Standards Board Bylaws](#) (clause 5.2.1.3) specifies that *“the standards development process shall not be dominated by any single interest category, individual, or organization”*
 - This means no participant may exercise *“authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints”* or *“to hinder the progress of the standards development activity”*
- This rule applies equally to those participating in a standards development project and to that project’s leadership group
- Any person who reasonably suspects that dominance is occurring in a standards development project is encouraged to bring the issue to the attention of the Standards Committee or the project’s IEEE-SA Program Manager

STNP CORROSION WORKING GROUP – FALL 2024 MEETING

Membership:

- Working Group includes (29) members
 - New members who requested membership S24 are highlighted yellow
- Requirement for Quorum: 15 of 29 members in attendance



QR Code
For Digital
Sign-In

First Name	Last Name	Company	First Name	Last Name	Company
Nabi	Almeida	Prolec GE	Verena	Pellon	FPL
Javier	Arteaga	Hitachi Energy	Daniel	Posadas	Prolec Celeco
Dave	Blew	Consultant	James	Ratty	Electronic Technology Inc.
Jeffrey	Brooks	Power Engineers	Pedro	Salgado	Electronic Technology Inc.
Douglas	Craig	Richards Manufacturing Co.	Dan	Schwartz	Quality Switch, Inc.
Thomas	Dauzat	AEP - SWEPCO	Adam	Sewell	Quality Switch, Inc.
Herton	De Oliveira Filo	PSE&G	Jeremy	Sewell	Quality Switch, Inc.
Will	Elliott	AEP - SWEPCO	Audrey	Siebert-Timmer	IFD Corporation
John	Harley	First Power Group LLC	Igor	Simonov	Toronto Hydro
Brian	Klaponski	Carte International Inc.	James	Spaulding	City of Fort Collins
Tiffany	Lucas	Prolec GE	Liz	Sullivan	Dominion Energy
Tyler	Morgan	Duke Energy	Reinaldo	Valentin	Duke Energy
Daniel	Mulkey	Mulkey Engineering Inc.	John	Vartanian	National Grid
Vinay	Patel	Consolidated Edison Co. of NY	Michael	Zarnowski	Carte International Inc.
George	Payerle	Carte International Inc.			

Membership Addition Rules: Attend 2 meetings

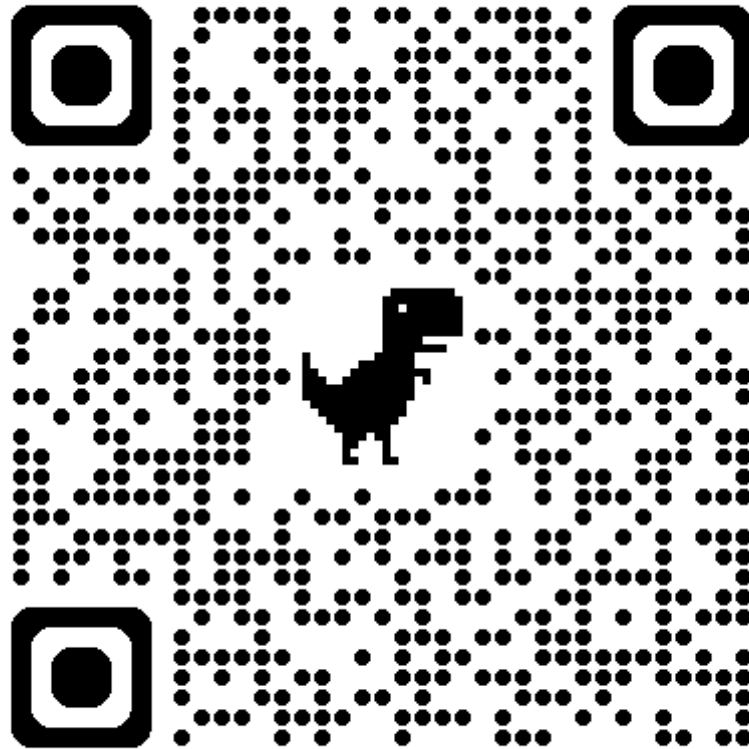
Membership Retention Rules: Attended 2 of the last 3 meetings

STNP CORROSION WORKING GROUP – *FALL 2024 MEETING*

Quorum Check:

- Working Group includes (28) members
 - New members who requested membership S24 are highlighted yellow
- Requirement for Quorum: 15 of 28 members in attendance

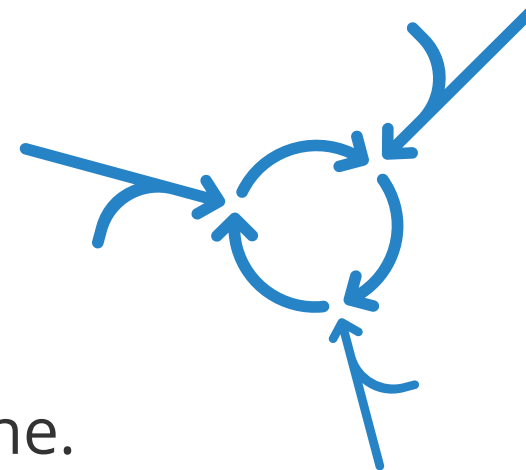
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STNP CORROSION WORKING GROUP – *FALL 2024 MEETING*

PC57.12.53 PAR Scope

- This guide provides technical references for users of transformers and network protectors in subsurface structures. This includes testing, measurements, and classifications to define corrosive environments, as well as strategies to mitigate corrosion in subsurface environments, guidance on equipment enclosure specifications, and cathodic protection.
- **PAR Approval Date:** 23 Feb 2022
- **PAR Expiration Date:** 31 Dec 2026
- A Motion to Ballot in 2025 is required to complete the project within the PAR timeline.

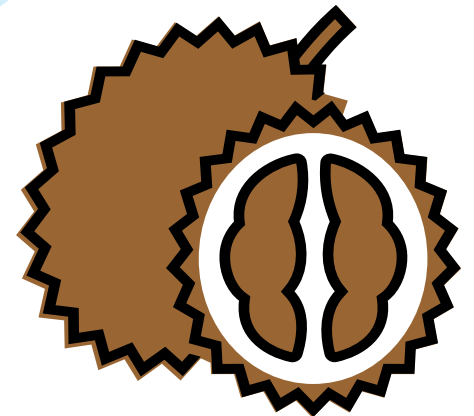


Review of the Taskforce Recommended Revisions

STNP CORROSION WORKING GROUP – FALL 2024 MEETING

Taskforce Mission & Work:

- In the Spring 2024 meeting a taskforce was formed to “review the information presented [in the S24 meeting] and come back to the group with recommendations on how to incorporate into the current draft.”
- The taskforce met (5) times virtually:
 - 12 April
 - 31 May
 - 11 July
 - 12 August
 - 9 September
- The group worked line-by-line through the draft.
- The participants included:
 - Tiffany Lucas (chair)
 - Nabi Almeida
 - Will Elliott
 - Audrey Siebert-Timmer
 - Glenn Stark
 - John Vartanian
 - Mike Zarnowski

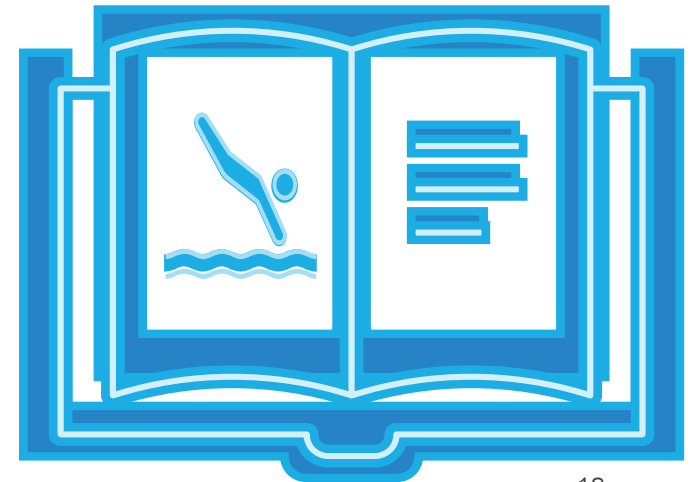


STNP CORROSION WORKING GROUP – *FALL 2024 MEETING*

Taskforce Summary

- (10) New Definitions
- (2) New Tables
- (1) Revised Figure
- Significant changes were made throughout the document.
- The length of the draft increased by 7 pages.

>Review Revised Draft>



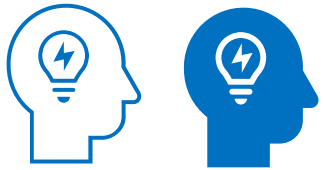
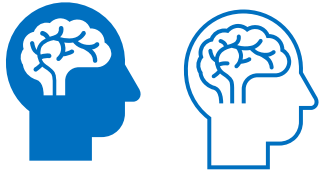
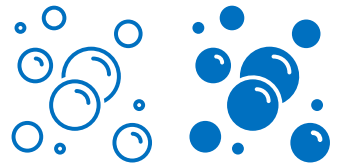
Next Steps?

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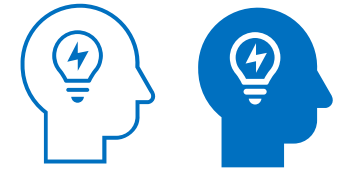
Next Steps:

- Discussion of further changes to the draft?
 - Are there topics from the corrosion presentation that should be addressed by the WG?
- Formation of taskforce(s) to address any proposed changes?
 - Please form a taskforce to address any topics that the WG believes should be addressed
- If no changes are proposed, would the WG like to:
 - Perform a survey or straw ballot for the current draft?
 - ***Motion to Ballot?***
 - Please propose other next steps you feel are worth considering.
- **Please note:** The WG will need to Motion to Ballot by 2025 to complete before the PAR expiration in 2026

STNP CORROSION WORKING GROUP – *FALL 2024 MEETING*



*Other
New Business
for Working Group?*



STNP CORROSION WORKING GROUP – FALL 2024 MEETING

Working-Group File Repository

- All files generated by the WG will be available in the [Collabratec file repository](#)
 - All meeting files (meeting minutes & slides)
 - Reference documents (copyright policy compliant)
- All files generated by the previous TF
 - All revisions of TF draft recommendations

The screenshot displays a workspace titled "STNP Guide for Mitigating Corrosion WG PC57.12.53" with 28 participants. The interface includes tabs for Activities, Files, Project Tracker, and Participants. The Files tab is active, showing a file directory on the left and a list of files on the right. The file directory on the left lists: References, Task-Force Work (expanded to show TF Draft Recomm..., TF Letter Ballot, TF Meeting Files, and TF Procedures), WG Draft Guide, and WG Meeting Files. The file list on the right shows: References (Apr 17, 20...), Task-Force Work (Mar 21, 20...), WG Draft Guide (Mar 21, 20...), and WG Meeting Files (Mar 21, 20...), all created by William Elliott. Red boxes highlight the file directory and the file list.

STNP Guide for Mitigating Corrosion WG PC57.12.53

★ WORKSPACE • 28 PARTICIPANTS

Guide for Mitigating Corrosion on Subsurface Transformers and Network Protectors > This guide will provide technical references for users of transformers and network protectors in subsurface structures. This includes testing, measurements, and classifications to define corrosive environments, as well as strategies to mitigate corrosion in subsurfac...
More..

Activities Files Project Tracker Participants

+ Upload Files + Create File + Create Folder Search 5 Files & Folders

File Directory

- References
- Task-Force Work
 - TF Draft Recomm...
 - TF Letter Ballot
 - TF Meeting Files
 - TF Procedures
- WG Draft Guide
- WG Meeting Files

Files History

Select All

Name	Date	Created By
References	Apr 17, 20...	William Elliott
Task-Force Work	Mar 21, 20...	William Elliott
WG Draft Guide	Mar 21, 20...	William Elliott
WG Meeting Files	Mar 21, 20...	William Elliott

SHARED FILE E

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Drive for Share

WORKSPACE C

William
Shreveport, I

MANAGE WOR

Edit Workspac
Transfer Own
Close Workspa

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Next Meeting:
Spring Conference
Denver, Colorado
March 25th 2025
(tentative date)