This document includes a list and descriptions of the 2020 Reliability Course offerings.

Customer Training
Department
Reliability Training Courses

CUSTOMER TRAINING -
RELIABILITY TRAINING COURSE CATALOG
2020
Introduction

The SPP Customer Training - Reliability 2020 Course Training Catalog provides course descriptions and sessions scheduled for the 2020 calendar year. You can register for these courses in the SPP Learning Center (LMS).

Note: You must have an account in the SPP LMS in order to log on. Links to create an account can be found on the sign-in page of the SPP LMS.

This document is owned and maintained by the SPP Customer Training Department. It is a living document and will be updated as new courses and Management materials become available. Please e-mail questions or comments to training@spp.org.

This document contains a complete schedule of the SPP Customer Training Department’s Reliability Training offerings for 2020. You can read a description of each course by clicking the links under Schedule of Classes. Registration information through our Learning Management System (LMS) is also included.

Types of Training

- **Self-Studies** – Self-studies are computer-based modules available through the SPP LMS. These training courses are self-paced at the discretion of the learner. Most of our self-study courses offer Continuing Education Hours (CEHs).

- **Learning Burst** – Learning Bursts are short, targeted segments of online training that deliver basic and valuable knowledge in short “bursts” or sessions of 10 minutes or less. Learning Bursts do not offer CEHs.

SPP currently offers two types of Instructor-Led training.

- **Instructor-Led Training (ILT)**
  - Training delivered in a real-time environment

- **Virtual Instructor-Led Training (VILT)**
  - Interactive training delivered via the internet and sometimes referred to as a Net Conference or Webinar.
SPP Learning Center (LMS) Registration Information

Learners will use the SPP Learning Center (LMS) to search and register for:

- Self-Studies
- Learning Bursts
- Instructor-Led Training (ILT)
- Virtual Instructor-Led Training (VILT)

First-time visitors to the LMS must create an account to gain access.

Creating an Account in the SPP LMS

- Go to spp.csod.com and click the appropriate link:
  - Member Registration - Employees of SPP Member companies
    - (For a list of SPP Member companies, go to the Member page of SPP.org.)
  - Non-Member Registration - Employees of non-member companies (this includes Market Participants, Registered Entities who are not SPP Members, etc.)
    - Once you have created an account, log into the LMS.

Contact LMS@spp.org with any questions.
Effective as of 07/31/2020

Schedule of Classes

Click the title to view the course description, NERC Continuing Education hours, course fees, contact. Delivery dates and times can be located in SPP’s Learning Center (LMS).

Online Courses

Self-Studies with CEHs:
- Outage Coordination – CROW
- Control Performance Standards (CPS)
- System Restoration Principles
- Transmission Loading Relief (TLR)
- Voltage Control and System Stability
- Operator Awareness
- Power System Protection Curriculum
- Reserve Sharing System (RSS)
- SPP BA EOP Conservative Operations and Capacity and Energy Emergencies

Self-Studies (without CEHs):
- Adventures in Training - Subject Matter
- Expert (SME) Training
- SME – Learning the R.O.P.E.S

Learning Bursts (no CEHs):
- What is ACE?
- How to Calculate ACE

All Courses will be delivered as Virtual Instructor-led Training (VILT)

- Unit Commitment Fundamentals
- Emerging Technology
- Operating Personnel Communications Protocols
- Conservative Operations
- Power System Protection: Differential & Generator
- Power System Protection: Protection Schemes
- Natural Gas Fundamentals
- Minimum Generation and Load Shed
- Reliability Communication Tool
- Outage Coordination Methodology
- Event Reporting
- DTS Hands-On
- Power System Restoration Drill (EAST ONLY)
- Power System Restoration Drill (West Only)
- REOPS (VILT)
- Train-the-Trainer
Course Descriptions

REOPs Classroom Simulation Training VILT

SPP’s REOPs (Regional Emergency Operations) simulation course consists of two eight-hour training sessions that will focus on such topic areas as Congestion Management, Voltage Control principles, SPP’s Synchronization Process, and Contingency Analysis and mitigations. Each session will be offered virtually and will require the presence of a proctor who possesses VPN access to SPP’s Dispatcher Training Simulator (DTS). SPP will provide initial training on its DTS upon request.

This is Intermediate level training.

Course Fee for Non-members:
(16 hours) – $720/per entity ($45/Continuing Education Hour)
All payments are made through the SPP Learning Center (LMS). SPP does not invoice, but accepts all major credit cards for payment.

Other Details

NERC ILA ID: NERC ILA SPP_025_REOPs_VILT_2020 (Pending approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: TBD Operating Topics hrs. Partial Credit may be awarded in eight-hour session increments.

Event Contact: John Gunter – 501-688-2526

Delivery Dates:

| September 8-9 | September 22-23 | October 6-7 | October 27-28 |
Power System Restoration Drill

SPP’s Power System Restoration Drills are designed to provide participating entities an opportunity to practice the implementation of their system restoration plans including the assessment, coordination and communication necessary for system restoration. Drills will be conducted virtually, enabling entities to participate from their own facility. SPP’s Dispatcher Training Simulator (DTS) will be available through remote access, and SPP will offer preliminary training on the use of the simulator upon request. The drills will emphasize the application of NERC Standards, SPP Criteria and industry principles and guidelines related to system restoration. Facilitators, or their proxy, must be registered and present to assess each participant’s performance in the simulation activity.

This is an intermediate level training session that will require participants have an existing knowledge of NERC Standards, SPP Criteria and industry principles and guidelines related to system restoration. We strongly recommend learners planning to participate in a system restoration drill first complete SPP’s Restoration Principles Self-Study virtual training or other comparable restoration-focused training.

Members of Southwest Power Pool, Inc. may participate in customer training events at no additional cost. Non-members wishing to participate in SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:

Restoration Drill (16 hours) *(East only)* – $720/entity ($45/Continuing Education Hour)
Restoration Drill (8 hours) *(West only)* – $360/entity ($45/Continuing Education Hour)

All payments will be made through the SPP Learning Center (LMS). SPP does not invoice, but accepts all major credit cards for payment.

Other Details

NERC ILA Number: NERC ILA SPP_025_PSRD_2020 *(Pending approval)* and SPP_025_PSRD_WI_2020 *(Pending approval)*. NERC ILA is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and that Southwest Power Pool adheres to NERC Continuing Education Program Criteria.
**Estimated NERC CE Hour Breakdown:** Totals: 16 Operating Topic hrs. 16 Standards hrs. 15 Simulation hrs.

*Partial Credit available – Partial credit will be awarded in whole-day increments only.*

Day 1 – 8 Op Topics hrs. 8 Standards hrs. 7 Sim hrs.
Day 2 – 8 Op Topics hrs. 8 Standards hrs. 8 Sim hrs.

Power System Restoration Drill _**West Interchange**_ - 8 Op Topics hrs. 8 Standards hrs. 7 Sim hrs.

Event Contact: [Greg Reed](#) – 501-482-2463

<table>
<thead>
<tr>
<th>Delivery Dates: East Only</th>
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<tbody>
<tr>
<td>October 13-14</td>
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<tr>
<th>Delivery Dates: West Only</th>
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<tbody>
<tr>
<td>October 15</td>
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**DTS Hands-On Class**

The DTS Hands-On course will be offered in advance of every DTS-based SPP simulation course. This course is designed to provide participants instruction on how to navigate through the DTS and take a variety of actions necessary for switching, generator control, voltage control, and system loading. Each session will be offered remotely and will require the presence of a proctor who possess VPN access to SPP’s DTS.

This is foundational level training.

**Course Fee for Non-members:**
There is no charge for non-members to attend this class.

**Other Details**
NERC ILA ID: *No Continuing Education Hours associated with this course.*

**Event Contact:** Greg Reed – 501-482-2463

Sessions are from 1400 – 1600 CPT

**Delivery Dates:**

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<th>October 9</th>
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<th>November 2</th>
<th>November 6</th>
<th>November 11</th>
<th>November 30</th>
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Return to schedule
Virtual Instructor-Led Training – Conservative Operations

This two-hour VILT session will review SPP’s Conservative Operations triggers and responses as outlined in the SPP Balancing Authority Emergency Operating Plan. Participants will first explore a variety of system conditions that may trigger SPP’s Conservative Operations. Then, participants will review the actions SPP will likely take in response to each trigger.

Members of Southwest Power Pool, Inc. may participate in customer training events at no additional cost. Non-members wishing to participate in SPP training events will be charged according to SPP’s Customer Training pricing structure.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_CO_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact: Greg Reed– 501-482-2463

Delivery Dates:

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<th>August 25 (PM)</th>
<th>September 1 (AM)</th>
<th>September 16 (PM)</th>
<th>November 19 (AM)</th>
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Return to schedule
Virtual Instructor-Led Training – Power System Protection: Differential and Generator Protections

This two-hour VILT session builds on SPP’s Power System Protection Fundamentals self-study course focuses on Differential Protection and Generator Protection. Applicable NERC Standards and SPP Criteria related to the use and coordination of system protection will also be reviewed.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_PSP_DGP_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: Pending approval 2 Operating Topics hrs. 2 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 - 1400(CPT).

Event Contact:  Greg Reed – 501-482-2463

Delivery Dates:

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<th>September 17 (AM)</th>
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Virtual Instructor-Led Training – Unit Commitment Fundamentals

This two-hour VILT session will review and simulate Day-Ahead and Intra-Day Reliability Unit Commitment (RUC) processes and how RUC may be used to support such real-time operating concerns as Power Flow, Capacity and Energy Emergencies, and Voltage Support.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_UCF_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: Pending approval 2 Operating Topics hrs. 2 Standards hrs. 1 Simulation hr.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 - 1400(CPT).

Event Contact: Gay Anthony – 501-688-1722

Delivery Dates:

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<th>August 24 (AM)</th>
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Return to schedule
Virtual Instructor-Led Training – Operating Personnel Communications Protocols

This two-hour VILT session covers NERC Standard COM-002-4 – Operating Personnel Communications Protocols and protocols developed for the SPP footprint in response to the NERC standard.

This is Intermediate level training.

**Course Fee for Non-members:**
VILT (2 hours) - $90/per person or $45/Continuing Education Hour.

All payments are made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

**Other Details**
**NERC ILA ID:** NERC ILA SPP_025_NC_OPCP_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

**Estimated NERC CE Hours Breakdown:**
Totals: Pending approval 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 - 1400(CPT).

**Event Contact:** Jennifer Farley – 501-688-8398

**Delivery Dates:**

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[Return to schedule]
Virtual Instructor-Led Training – Emerging Technologies

This two-hour VILT session will discuss some of the newer existing and emerging technologies in the power industry, and the opportunities and challenges they bring to real-time operations within SPP. Solar power and grid energy storage technology will be discussed, as well as other emerging technologies with impact to the BES. Any NERC Standards, SPP Criteria, and other SPP business rules related to the use of these technologies will also be reviewed.

Members of Southwest Power Pool, Inc. may participate in customer training events at no additional cost. Non-members wishing to participate in SPP training events will be charged according to SPP’s Customer Training pricing structure.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_ET_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: 2 Operating Topics hrs. 0 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact: Greg Reed – 501-482-2463

Delivery Dates:

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<th>August 24 (PM)</th>
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Return to schedule
Virtual Instructor-Led Training – Power System Protection: Protection Schemes

This two-hour VILT session builds on SPP’s Power System Protection Fundamentals self-study course focuses on Pilot Relay Schemes and Remedial Action Schemes. Applicable NERC Standards and SPP Criteria related to the use and coordination of system protection will also be reviewed.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through SPP’s Learning Management System (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_PSP_PS_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact: John Gunter – 501-688-2526

Delivery Dates:

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<th>October 20 (AM)</th>
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Return to schedule
Virtual Instructor-Led Training – Natural Gas Fundamentals

This two-hour VILT session will focus on the natural gas industry and its specific relationship (from a reliability perspective) on the Bulk Electric System. Topics and objectives include an introduction and discussion on the physics of natural gas, and on the gas industry infrastructure related to procurement, storage, and delivery. Participants are also asked to consider how situational awareness by BES operators - with regards to awareness of the gas industry and gas disruption - might be used to maintain and possibly improve reliability.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through SPP’s Learning Management System (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_NGF_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact: John Gunter – 501-688-2526

Delivery Dates:

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Virtual Instructor-Led Training – Minimum Generation and Load Shed

This two-hour VILT session will first review SPP’s approach to addressing Minimum Generation events. Following an initial review, participants will assess a Minimum Generation scenario and develop a mitigation plan to address the condition. Next, participants will explore load-shed principles for capacity deficiencies and localized voltage conditions, before applying their knowledge to mitigate simulated load shed scenarios.

This is Intermediate level training.

Course Fee for Non-members:

VILT (2 hours) - $90/per person or $45/Continuing Education Hour

All payments are made through SPP’s Learning Management System (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details

NERC ILA ID: NERC ILA SPP_025_NC_MGLS_2020 is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:

Totals: 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact: John Gunter – 501-688-2526

Return to schedule

Delivery Dates:

| August 27 (PM) | September 29 (PM) | October 20 (PM) | December 15 (PM) |
Virtual Instructor-Led Training – Reliability Communication Tool

This two-hour VILT session will review the features and functions of the R-COMM Tool. Participants will be able to identify R-COMM’s primary features and explain its multidirectional role in near real-time notifications. Participants will also review the roll R-COMM plays in NERC Standard EOP-011 related to load shed and COM0002 related to SPP’s Communications Protocol.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through SPP’s Learning Management System (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_RCT_2020 (Pending approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact:  Greg Reed – 501-482-2463

Return to schedule

Delivery Dates:

| October 1 (AM) | October 22 (AM) | December 17 (AM) |
Virtual Instructor-Led Training – Event Reporting

This two-hour VILT session will review NERC’s and SPP’s Event Analysis Process. Participants will be able to state the benefits and procedures of these two event analysis processes when reporting Bulk Electric System (BES) events. The session will review NERC Standard EOP-004 reporting requirements as well as identify reportable events. Additionally, the participants will identify necessary reporting forms, EOP-004 Attachment 2 Event Reporting Form and the Department of Energy OE-417 form.

This is Intermediate level training.

Course Fee for Non-members:

VILT (2 hours) - $90/per person or $45/Continuing Education Hour

All payments are made through SPP’s Learning Management System (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details

NERC ILA ID: NERC ILA SPP_025_NC_ER_2020 (Pending approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:

Totals: 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact: Jennifer Farley – 501-688-8398

Return to schedule

Delivery Dates:

| October 1 (PM) | October 22 (PM) | December 17 (PM) |
Virtual Instructor-Led Training – Outage Coordination Methodology

This two-hour VILT session will review SPP’s Outage Coordination Methodology. Participants will identify the purpose of the methodology as stated in NERC standard IRO-017. They will also identify timelines and submission requirements for transmission and generation outages. Additionally, participants will identify best practices and the importance of adhering to SPP’s Outage Coordination Methodology.

This is Intermediate level training.

Course Fee for Non-members:
VILT (2 hours) - $90/per person or $45/Continuing Education Hour
All payments are made through SPP’s Learning Management System (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_NC_OCM_2020 (Pending approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

Estimated NERC CE Hours Breakdown:
Totals: 2 Operating Topics hrs. 1 Standards hrs.

VILT training material and instructions will be provided to registered participants once registration has closed. Sessions are 0900 – 1100 and/or 1200 – 1400 (CPT).

Event Contact: Jennifer Farley – 501-688-8398

Delivery Dates:

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<th>September 30 (PM)</th>
<th>October 21 (PM)</th>
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Return to schedule
SPP BA EOP Conservative Operations and Capacity and Energy Emergencies

Being prepared to handle the Bulk Electric System (BES) during emergency operations is a CRITICAL skill for system operators and other key personnel. This self-study course will focus on Capacity and Energy Emergencies (CEE) as well as Conservative Operations.

This is Intermediate level training.

The participants will identify how the SPP Balancing Authority Emergency Operating Plan and NERC’s EOP standards identify and describe actions to be taken for mitigating these emergency situations.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:
Self-Study (1 CE hour) - $45/per person or $45/Continuing Education Hour
All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_BAEOP_CO_CEE_SS_2019 (Pending renewal approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

NERC CE Hours Breakdown:
Totals: 1 Operating Topics hrs. 1 Standards hrs.

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Outage Coordination (CROW) Self-Study

SPP uses the CROW Outage Scheduler to communicate and track planned and emergency outages of transmission elements and generating units. The Outage-Coordination – CROW Self-Study will describe the importance and timeliness of outage coordination and reporting. An emphasis will be placed on SPP Operating Criteria Appendix OP-2: Outage Coordination Methodology and the CROW outage submission tool.

This is Intermediate level training.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:
Self-Study (1.5 hours) - $67.50/per person or $45/Continuing Education Hour
All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_CROW_SS_2014 (Pending renewal approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

NERC CE Hours Breakdown:
Totals: 1.5 Operating Topics hrs. 1.5 Standards hrs.

Search the SPP LMS with the term “CROW” or “Reliability Self-Study” for more information and for registrations options.

Return to schedule
Control Performance Standards (CPS) Self-Study

This Self-Study is designed to ensure participants develop an understanding of the NERC Real Power Balancing Control Performance Standards, Control Performance Standard 1 (CPS1) and Balancing Authority ACE Limit (BAAL); and the Disturbance Control Performance Standard (DCS). Applicable concepts, such as ACE and frequency will also be discussed, as well as expectations for compliance with each of these standards.

Those taking this Self-Study should have a clear understanding of the ACE calculation. For a refresher, we suggest you take the Learning Bursts; What is ACE? and How to Calculate ACE.

This is Intermediate level training.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:
Self-Study (1 hour) - $45/per person or $45/person per Continuing Education Hour
All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_CPS_SS_2016 (Pending renewal approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

NERC CE Hour Breakdown:
Totals: 1 Operating Topics hr. 1 Standards hr.

Search the SPP LMS with the term “CPS” or “Reliability Self-Study” for more information and for registration options.
System Restoration Principles (SRP) Self-Study

This Self-Study is designed to help participants develop an understanding of system restoration principles, as well as NERC Standards and SPP Criteria related to system restoration. Topics covered in this self-study include, but are not limited to, acceptable frequency and voltage limits, load restoration guidelines, and criteria for interconnection.

*We strongly recommend anyone planning to participate in a system restoration drill first complete this self-study.*

This is **Intermediate** level training.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

**Course Fee for Non-members:**

*Self-Study (1 hour) - $45/per person or $45/person per Continuing Education Hour*

All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

**Other Details**

**NERC ILA ID:** NERC ILA SPP_025_SRP_SS_2015 *(Pending renewal approval)* is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

**NERC CE Hours Breakdown:**

Totals: 1 Operating Topics hr. 1 Standards hr.

Search the SPP LMS with the term “System Restoration” or “Self-Study” for more information and for registration options.

[Return to schedule]
Transmission Loading Relief (TLR) Self-Study

This Self-Study is designed to ensure participants develop an understanding of flowgates, distribution factors and the TLR process. The various levels of TLR will be described along with considerations when selecting a particular TLR level, curtailment amounts, and Network and Native Load (NNL) relief. Applicable NERC and SPP requirements will also be reviewed.

This is Intermediate level training.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:

Self-Study (1 hour) - $45/per person or $45/person per Continuing Education Hour

All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details

NERC ILA ID: NERC ILA SPP_025_SS_TLR_2015 (Pending renewal approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

NERC CE Hour Breakdown:

Totals: 1 Operating Topics hr. 1 Standards hr.

Search the SPP LMS with the term “TLR” or “Reliability Self-Study” for more information and for registration options.

Return to schedule
Voltage Control and System Stability (VCSS) Self-Study

This Self-Study is designed to present an overview on the components of power and how reactive power influences power flow in a transmission system. This CBT will include information on managing system stability during changing conditions, and the equipment on the system that can assist with maintaining adequate voltage during normal and emergency conditions.

This is *Intermediate level* training.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

**Course Fee for Non-members:**
*Self-Study (1 hour)* - $45/per person or $45/person per Continuing Education Hour
All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

**Other Details**
*NERC ILA ID: NERC ILA SPP_025_VCSS_SS_2017 (Pending renewal approval)* is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

*NERC CE Hour Breakdown:*
Totals: 1 Operating Topics hr.; 1 Standards hr.

Search the SPP LMS with the term “VCSS” or “Reliability Self-Study” for more information and for registration options.

[Return to schedule]
Operator Awareness (OA) Self-Study

This Self-Study introduces the components of Operator Situational Awareness and identifies the importance of the use of operator situational awareness in recognizing reliability issues on the system. The self-study will also identify Human Performance Tools that can promote Operator Awareness and can be used to help respond to contingencies.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:
Self-Study (1 hour) - $45/per person or $45/person per Continuing Education Hour

All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_OA_SS_2017 (Pending renewal approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

NERC CE Hour Breakdown:
Totals: 1 Operating Topics hr.
Search the SPP LMS with the term “OA” or “Reliability Self-Study” for more information and for registration options.

Return to schedule
Power System Protection Curriculum

This self-study course will review the fundamental purpose of system protection and the basic components that make up a protection system. Participants will review a variety of relay types, characteristics, and applications such as differential relays, distance relays, instantaneous and time-delay relays, and directionality.

Members of Southwest Power Pool, Inc. may request self-study at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:
Self-Study (1.5 hour) - $45/per person or $90/person per Continuing Education Hour
All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_PSP Curriculum_2020 (Pending approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

NERC CE Hour Breakdown:
Totals: To Be Determined  (Pending course pilot)

Search the SPP LMS with the term “Protection” or “Reliability Self-Study” for more information and for registration options.

Return to schedule
Reserve Sharing System (RSS) Self-Study

SPP uses the OATI Reserve Sharing System (RSS) tool to notify SPP’s Reserve Sharing Group (RSG) when one of its members has suffered a sudden and unexpected loss of capacity. Reserves carried by RSG members will be proportionately distributed by the RSS for recovery of this loss.

This self-study e-Learning will discuss the allocation and distribution of reserves within the SPP RSG as well as other information available in the SPP RSS. By participation in self-check scenarios throughout the session, the participants will learn how to submit pertinent data and the outcome of different reserve sharing situations.

This is Intermediate level training.

Members of Southwest Power Pool, Inc. may request self-study e-Learning at no additional cost. Non-members wishing to take SPP training events will be charged according to SPP’s Customer Training pricing structure.

Course Fee for Non-members:
Self-Study (1.5 hours) - $67.50/per person or $45/Continuing Education Hour
All payments will be made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA ID: NERC ILA SPP_025_RSS_SS_2016 (Pending renewal approval) is recognized by the North American Electric Reliability Corporation as an approved learning activity for which NERC CE hours can be awarded, and Southwest Power Pool adheres to NERC Continuing Education Program Criteria.

NERC CE Hours Breakdown:
Totals: 1.5 Operating Topics hrs. 1.5 Standards hrs.

Search the SPP LMS with the term “RSS” or “Reliability Self-Study” for more information and registration.

Return to schedule
Non- Continuing Education Hours
Training Courses
SPP Train-the-Trainer

Southwest Power Pool’s Train-the-Trainer provides trainers opportunities to enhance their professional skills as they design and develop quality training programs using a Systematic Approach to Training (SAT). Using a SAT is not only a NERC requirement; it is an essential component in developing great training.

The 2020 Train-the-Trainer curriculum will consist of two Virtual Instructor-led Training (VILT) sessions. Please see the LMS for a complete description of each training event.

Members of Southwest Power Pool, Inc. may participate in customer training events at no additional cost. Non-members wishing to participate in SPP training events will be charged according to SPP’s Customer Training pricing structure.

Who should attend these sessions?
• Individuals responsible for conducting training for their respective entities.
• System Operators and other operations personnel who play a role in training.

Course Fee for Non-members:
Train-the-Trainer VILT Conferences – (2 hours each) $35/participant
All payments are made through the SPP Learning Center (LMS). SPP does not invoice but accepts all major credit cards for payment.

Other Details
NERC ILA IDs: SPP’s Customer Training Department follows NERC’s guidelines for awarding Continuing Education hours. The Train-the-Trainer courses do not address the approved Continuing Education topics found in Appendix A of NERC’s Continuing Education Manual. Therefore, no continuing education hours will be awarded for the Train-the-Trainer classes.

Event Contact: Jennifer Farley – 501-688-8398
VILTs are 0900 – 1100 (CPT).
Subject Matter Expert Training Self-Studies
No Continuing Education Hours are available for these courses.

According to NERC guidelines, a Subject Matter Expert (SME) must receive training before conducting training sessions. SPP’s Customer Training Department has developed two self-studies in order to provide SMEs with the necessary training.

If an organization is a member of Southwest Power Pool, Inc., they may request these Subject Matter Expert self-studies at no additional cost. Non-members will not have access to these self-studies.

*We highly recommend you take both self-studies.*

Adventures in Training - Subject Matter Expert (SME) Training Self-Study

The Subject Matter Expert (SME) Training Self-Study is intended for individuals who have been identified as SMEs in their fields and subsequently asked to provide training. This thirty-minute self-study guides SMEs through relevant information pertaining to their responsibilities before, during, and after their session. Along the way, they will identify effective planning and presentation techniques and strategies. No CEH credit is awarded.

Learning the R.O.P.E.S.: Subject Matter Expert Training Self-Study

Learning the R.O.P.E.S - Subject Matter Expert (SME) Training Self-Study is intended for individuals who have been identified as SMEs in their fields and subsequently asked to provide training. This 30-minute scenario-based self-study navigates SMEs through the R.O.P.E.S. Method for delivering training. By learning to implement the five steps in this easy-to-use model, SMEs can ensure an effective delivery of their presentations. No CEH credit is awarded.

Return to schedule
SPP Learning Bursts

SPP Learning Bursts are short, targeted segments of training that deliver basic and valuable knowledge in short “bursts” or sessions. This training is intended for beginners. No CEH credit is awarded.

SPP will continue to add courses to the Learning Burst series. Check back often by searching the SPP LMS with the term, “Reliability Learning Burst”.

Members of Southwest Power Pool, Inc., may request Learning Burst courses at no additional cost. Non-members may request access to the Learning Burst Series.

What is ACE? Learning Burst

Those taking this reliability Learning Burst virtual training should have a basic understanding of frequency and interchange. This Learning Burst is designed to provide the learner with a brief definition of Area Control Error (ACE) and why it is important.

Search the SPP LMS with the term “ACE” for more information and for registration options.

How to Calculate ACE? Learning Burst

This Learning Burst virtual training is designed to provide the learner with four different methods for calculating ACE. The learner can review any of the four methods for understanding and then apply the knowledge learned to several example calculations. Each example calculation will also provide a guided review using each of the four methods. It is suggested that those taking this Learning Burst have already completed the What is ACE? Learning Burst.

Search the SPP LMS with the terms “ACE” or “How to” for more information and for registration options.