

**WORK SESSION MINUTES – WEDNESDAY, AUGUST 17, 2022**

STATE OF KANSAS        )  
  ) SS  
CITY OF KANSAS CITY )

The Board of Public Utilities of Kansas City, Kansas (aka BPU, We, Us, Our) met in Work Session on Wednesday, August 17, 2022 at 5:00 P.M. The following Board Members were present: Mary Gonzales, President; Rose Mulvany Henry, Vice President; Thomas Groneman, Secretary; Robert L. Milan, Jeff Bryant, and David Haley.

Also present: William Johnson, General Manager; Angela Lawson, Deputy Chief Counsel; Lori Austin, Chief Financial Officer/Chief Administrative Officer; Steve Green, Executive Director Water Operations; Jerin Purtee, Executive Director Electric Supply; Jerry Sullivan, Chief Information Officer; Maurice Moss, Executive Director Corporate Compliance; Dennis Dumovich, Director of Human Resources; Glen Brendel, Director Electric Production Operations/ Maintenance; and Robert Kamp, IT Project Manager.

A tape of this meeting is on file at the Board of Public Utilities.

Ms. Gonzales called the meeting to order at 5:00 P.M.

Roll call was taken, all Board Members were present except Mr. Haley, who arrived at 5: 04 P.M.

**Item #3 – Approval of Agenda**

A motion was made to approve the Agenda by Mr. Bryant, seconded by Mr. Milan, and unanimously carried.

**Item #4 – Board Update/GM Update**

Ms. Gonzales reminded the Board that they would be meeting on Monday, August 29 to continue discussing their goals for their portion of the Strategic Plan.

Mr. Johnson reported on the Unified Government (UG) Efficiency Taskforce. BPU has submitted the data requested, mostly financial. The majority of the Taskforce’s discussion is had been centered around UG operations.

Mr. Johnson also said that he and Mr. Jeff Harrington, Bonner Springs Mayor, had met with Mayor Gardner and his staff regarding the County Administrator search.

WORK SESSION MINUTES – WEDNESDAY, AUGUST 17, 2022

STATE OF KANSAS        )  
                                  ) SS  
CITY OF KANSAS CITY )

**Item #5 – Electric Supply Employee Training**

Mr. Jerin Purtee, Executive Director Electric Supply, gave the Board a presentation (see attached) outlining the training and development process undertaken by System Operators at the Electric Control Center (ECC).

Mr. Purtee responded to questions and comments from the Board.

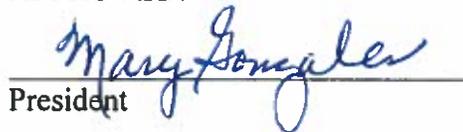
**Item #6 – Adjourn**

A motion was made to adjourn the Work Session at 5:47 P.M. by Mr. Bryant, seconded by Mr. Milan, and unanimously carried.

ATTEST:

  
Secretary

APPROVED:

  
President



# BPU System Operator Training

August 17, 2022

# PER-003-2 Requirement 2

- Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:
  - Areas of Competency
    - Transmission operations
    - Emergency preparedness and operations
    - System Operations
    - Protection and control
    - Voltage and reactive
  - Certificates
    - Reliability Coordinator
    - Balancing, Interchange and Transmission Operator
    - Transmission Operator

# NERC Exam Statistics

- All BPU System Operators currently hold a Reliability Coordinator certification
- Exam consists of 120 scored questions with a Cut Score of 92 correct to pass
- BPU requires all new System Operators to pass the exam within 6 months of placement

**NERC**  
NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## System Operator Certification Exam Statistics

Exam Statistics				
Year <sup>1</sup>	Number of Exams Taken	Number of Exams Passed	Number of Exams Failed	Percentage Pass
2022	412	266	146	64.56%
2021	811	481	330	59.00%
2020	650	388	262	60.00%
2019	798	554	244	69.40%
2018	699	496	203	71.00%

[https://www.nerc.com/pa/Train/SysOpCert/System%20Operator%20Certification%20DL/SOC\\_Exam\\_Statistics.pdf](https://www.nerc.com/pa/Train/SysOpCert/System%20Operator%20Certification%20DL/SOC_Exam_Statistics.pdf)

# Active Credentials



**NERC**  
NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

**Active Credentials**

Credential	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
Reliability Coordinator	5158	5168	5157	5111	5090
Transmission Operator	1339	1356	1374	1382	1361
Balancing, Interchange & Transmission Operator	675	679	676	674	679
Balancing & Interchange Operator	308	299	297	298	290
Total	7480	7502	7504	7465	7420
<i>Numbers as of 04/25/2022</i>					

- 7420 Active NERC Credentials
  - Data as of 4/25/2022

[https://www.nerc.com/comm/PCGC/Agenda%20Highlights%20and%20Minutes%2013/Program\\_Stats\\_May\\_2022\\_Q1\\_Open\\_Meeting.pdf](https://www.nerc.com/comm/PCGC/Agenda%20Highlights%20and%20Minutes%2013/Program_Stats_May_2022_Q1_Open_Meeting.pdf)

# NERC Certification Training

- BPU System Operators are provided with HSI (SOS) and OES-NA material to assist with obtaining the required NERC certification
  - Module based training that introduces new operators to the topics that will be covered during the test
  - Vendors that send personnel to take NERC exam for the purpose of staying current on questioning practices and tactics seen
  - Program provides access to system simulators and practice tests that give Operators best chance at success on NERC exam

# NERC Certification Maintenance

- Once the NERC exam is passed, an Operator maintains the certification by completing Continuing Education (CE) hours
  - NERC Reliability Coordinator certification requires 200 CE hours every three years to maintain
  - As a member of the Southwest Power Pool, BPU Operators are able to participate in SPP sponsored events to accumulate the bulk of the required CE hours

# System Operator Training Plan

- Developed using a systematic approach to train System Operators on the BPU specific tasks to operate the utilities portion of the electric system
- Completion of Training Plan consists of:
  - 37 Qualification Cards where Operator must demonstrate an understanding and capability of performing each BPU specific task
  - 4 quizzes given throughout progression of tasks
  - 1 final exam once all Qualification Cards have been completed
  - Final approval given by department supervision where Operator is deemed Qualified to perform duties without constant direct supervision



ECC System Operations  
Training Qualification Card

--

**Task**

T	Description	BES Related
27	Real Time Assessment	Y

**Steps for Completion**

Steps	Description	OJT	Date	OJQ	Date
1	Open new RTA report and input real time data				
2	Use CROW system, EMS SCADA system, and map board to identify any transmission system (161KV, 69KV, 161KV Tie Lines, Tie Auto XFMR's, and Cap Banks) outages				
3	Evaluate and check 161KV Voltage system. Using: 1) EMS Tabular display for snapshots of 161KV Transmission Systems 2) Map Board Reactive Resources to add up and enter Total Calculated Online 161KV MV's available.				
4	Evaluate and check 69KV Voltage system. Using: 1) EMS Tabular display for snapshots of 69 KV Transmission System 2) Map Board Reactive Resources to add up and enter Total Calculated Online 69KV MV's available.				
5	Evaluate Gen Status Reports for Nearman Shift Supervisor for MW and MV capability and status changes identify online Gen AVR status				
6	Other data to Analyze includes: 1) Transmission Flow Monitoring 2) Tool Map Board (% Line Loading) 3) PRT to identify MW (Peak) Load 4) NOAA Weather to note weather conditions. 5) Frequency				
7	Review RTCA results for possible SOL violations				
8	Review NERC Certified Operator results and actions				
9	Update "Notes" section for any additional information in regards to Real Time Assessment and system reliability				

Qualified By	Date	Reviewed By	Date

**Notes**


# Qualification Cards

- Each Qualification Card lists tasks that the Operator must be able to demonstrate proficiency in completing
- On the Job Training (OJT) is completed through Performing, Simulating, Observing or Discussing requirement for each task
- On the Job Qualification (OJQ) requires the Operator to either Perform or Simulate each task
  - Operators must demonstrate proficiency in every step when presented with various scenarios to become Qualified for each step

# System Operator Tiers

- System Operator Trainee
  - Newly hired Operator that does not have an active NERC certification
- System Operator 1
  - Operator has passed their NERC test and in process of completing Qualification steps of the System Operator Training Plan
  - Meets minimum requirements per NERC to perform functions of a System Operator. BPU requires its System Operators to exceed this requirement by having Operators complete Qualification process. A System Operator 1 must work under the direction of another Qualified System Operator or supervisor at all times.
- System Operator 2
  - Completed Qualification process of training plan and able to perform actions without constant direct supervision. Has the ability to perform all actions necessary to operate BPU's portion of the electric system.
- System Operator 3 (Senior System Operator)
  - Most senior position. Qualified to perform all actions necessary to operate BPU's portion of the electric system and has demonstrated proficiency at performing all tasks. Has the most authority of all System Operator tiers.

- BPU System Operator desk is staffed 24/7/365
  - Rotating 12 hour shifts
  - Operator must hold an active NERC certification to work on shift to meet minimum requirement of PER-003-2
  - BPU requires all System Operators complete the System Operator Training Plan before working a shift without direct supervision

# Responsibilities

- BPU System Operators perform the duties of what some utilities have separated into three or more separate positions
  - Monitor and Control of BPU's 161kV and 69kV transmission system and 13.8/12.5kV distribution system
  - Scheduling and coordinating BPU generation within the SPP Balancing Authority
  - Preparing and performing Switching Orders in coordination with field personnel for scheduled/emergency maintenance
  - Supporting safety of line crews performing work by operating & tagging distribution reclosers
  - Monitors and responds to alarms within BPU's Physical Security Perimeter
  - Gather and maintain data used in many of BPU's reports
  - Perform actions required for BPU to remain compliant with various NERC Standards and SPP obligations that support the BPU financial position
    - Real-Time Assessments at least every 30 minutes, Operational Planning Analysis for next-day operations, ensure all resource offers and demand bids are accurate and submitted prior to 0930 deadline daily

# Current System Operators

- Current System Operator Staff
  - System Operator Trainee
    - Brett Williams
    - Parker Miller
  - System Operator 1
    - Richard Alexander
  - System Operator 2
    - Marko Cvetkovic
    - Alex Eskina
    - Desiree Fergus
    - Randall Hughes
  - System Operator 3
    - Tony Warden
    - Bill Freeby
    - Mike Jurich
    - Shawn Owens
    - Nenad Nikolic

# Refresher Training

- Beyond the training needed to obtain and maintain a NERC certification, BPU System Operators complete refresher training
  - Presentations followed by a short quiz to stay current on infrequently used tasks and procedures
  - Annual training on Emergency Operating Procedures



Thank you

Questions?