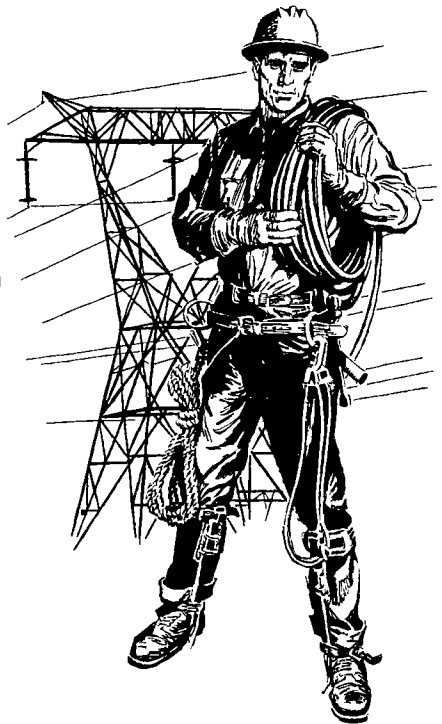


FOURTH ANNUAL JOINT UTILITY TRAINING WORKSHOP

January 30, 31, & February 1, 1979

Holiday Inn and
Staurolite Inn

Brookings, South Dakota



SPONSORED BY
JOINT UTILITY TRAINING COMMITTEE (JUTS)
SOUTH DAKOTA ELECTRICAL COUNCIL

IN COOPERATION WITH
CENTER FOR POWER SYSTEMS STUDIES

JANUARY 30 - 31 — FEBRUARY 1, 1979
Holiday Inn and Staurohite Inn
Brookings, South Dakota

PROGRAM

TUESDAY

January 30, 1979

Holiday Inn

REGISTRATION

10 00 a m to 12.30 p m

WEDNESDAY

January 31, 1979

Holiday Inn

LUNCHEON

12 15 p m to 1 15 p m

Welcome and Introductions:

Greg Sherman, Chairman JUTS Committee

SESSIONS PROGRAM INFORMATION

Each session is designed as a sixteen hour mini-course. Registration will be for one session only per individual. You will remain in that session for the entire length of the course. Lineman Seminar V and VI are identical, but class sessions are held at different times to reduce class size and use laboratory facilities. Diplomas will be sent to your respective company if attendance has been continuous.

All session times will be:

Tuesday 1 00 p m to 5 00 p m
Wednesday 8 00 a m to 12 00 Noon
1 30 p m to 5 30 p m
Thursday 8.00 a m to 12 00 Noon

Exceptions:

Motor Controls - Session VII - 6 Hour Session
Wednesday 9 00 a m - Registration
10.00 a m to 12 00 Noon
1 30 p m to 5 30 p m

SESSION I
LEADERSHIP SEMINAR

Coordinator Murrel Johnson
Instructor Kurt Peters
Montana-Dakota Utilities Co , Bismarck, ND
Title Improving Supervisory Skills
Location Stauroilite Inn
Description

Topics will include nature of leadership, knowing your employees—individual differences, understanding performance and behavior, improving three-way communication, maintaining effective discipline, handling complaints and grievances, and building job satisfaction and morale. Designed for supervisory and management personnel

SESSION II
OIL CIRCUIT RECLOSERS AND VOLTAGE REGULATORS

Part I

Coordinator Pete Swanson
Instructors Douglas Fisher *Jim Quinn*
McGraw-Edison, Canonsburg, PA
Walt Wenino
McGraw-Edison, Fergus Falls, MN
Title Oil Circuit Reclosers, Coordination & Fusing
Location Municipal Utilities Building
Description.

The program will cover the operations of single and three phase hydraulic and electronic reclosers, as well as their coordination with other system protective devices such as fuses and sectionalizers

Part II

Coordinator Pete Swanson
Instructors Howard Webb
McGraw-Edison, Zanesville, OH
Walt Wenino
McGraw-Edison, Fergus Falls, MN
Title Voltage Regulators
Location Municipal Utilities Building
Description

The program is designed to obtain further knowledge on the operation and maintenance of voltage regulators. Equipment will be demonstrated

SESSION III
**BASIC ELECTRICITY AND
RUBBER PROTECTIVE EQUIPMENT**

Part I

Coordinator Larry Brink
Instructor Dennis Merchant
 Vo-Tech School, Mitchell, SD
Title Basic Electricity
Location Staurolite Inn

Description

Basic Electricity is a 14-hour course designed to help linemen relate basic electricity to his everyday work activities such as transformers, capacitors, metering, system design, regulation and coordination

Part II

Coordinator Larry Brink
Instructor George Maumee
 Norton Co , Burnsville, MN
Title Rubber Protective Equipment
Location. Staurolite Inn

Description

Rubber Protective Equipment is a 2-hour course designed to instruct linemen in the care and use of rubber protective goods

SESSION IV

OPERATING A DISTRIBUTION SYSTEM

Coordinator Tom Gulbranson

Location Staurolite Inn

Titles and Instructors.

- 1 Underground Switching and Grounding Problems
Correct Procedures for Operating an Underground System
(4 hours)
Rick Garlock
RTE Corporation, Waukesha, WI
John Kalmuck
RTE Corporation, Waukesha, WI
- 2 Regulator Compensation Setting
Capacitors vs Regulators
Power Factor and Voltage Control
(6 hours)
Ralph H Hopkinson
General Electric Co , Schenectady, NY
Dan Morgan
General Electric Co , Hickory, NC
Larry Bach
General Electric Co , Hudson Falls, NY
- 3 Proper Ways to By-pass Regulators and OCB's Power Factor
Demonstration (2 hours)
Dr J O Storry
South Dakota State University, Brookings, SD
- 4 Coordination Between Reclosers and Substation Breakers
General System Protection (4 hours)
Prof Wayne Knabach
South Dakota State University, Brookings, SD

Description

A course designed for people in the electrical engineering field and for those people responsible for the design and operation of a distribution system

SESSIONS V & VI
LINEMAN SEMINAR

Coordinators Ernie Leesch
 Chuck Birkholt

Location Holiday Inn

Titles and Instructors.

- 1 Theory and Procedures of U G Cable Locating and Fault Finding (2 hours)

 Robert Larson
 Radar Engineers, Portland, OR

- 2 U G Problems - Neutral Corrosion (2 hours)

 Pete Lee
 Ulteig Engineers, Inc , Fargo, ND

- 3 Grounding of U G Cables and Transformers (2 hours)

 Rick Garlock
 RTE Corporation, Waukesha, WI

- 4 U G Cable Make-up, Splices, Elbows and Feed-thru Devices (2 hours)

 Lee Tourtelotte
 The Klass Company, Inc , Minneapolis, MN

- 5 Environmental Protection Agency Information on PCB (1 hour)

 Ralph Larsen
 EPA Office, Region VIII, Denver, CO

- 6 Transformer Connections (3 hours)

 Leo Murphy
 Minnesota Department of Adult Education, St Paul, MN

- 7 Line Balancing and Phasing (2 hours)

 William Haufschild
 Montana-Dakota Utilities Co , Mobridge, SD

- 8 Proper Connections (2 hours)

 Roger Anderson
 Fargo Mfg Company, Inc , Buffalo, MN

Description

 A 16-hour course for line operating, maintenance and design personnel on operating problems of electrical distribution systems The above subjects will be covered

SESSION VII
MOTOR CONTROLS .

Coordinator Dennis Englestad
Instructor Dick Adamson
 Allen Bradley Company, Fargo, ND
Title Motor Control
Location Holiday Inn

Description

Three areas of motor controls will be covered

- (1) motor basics - pilot duty versus power, enclosures - types of motor control,
- (2) OSHA and how it relates to motor controls, and
- (3) new products and concepts of motor control - energy management systems and programmable controllers

JOINT UTILITY TRAINING COMMITTEE

Chairman Greg Sherman, Electric Utilities, Brookings
Vice Chairman Dennis Englestad, Englestad Electric, Watertown
Secretary: Don Scheibe, Northwestern Public Service, Huron
Treasurer Bill Giesen, Otter Tail Power, Milbank

JUTS MEMBERS

South Dakota Rural Electrics:

Roger Nagel, JUTS Supervisor, REC, Pierre
Ernie Leesch, JUTS Instructor, REC, Pierre
Murrel Johnson, Whetstone Valley Electric Cooperative Inc ,
Milbank
Charles Birkholt, Cam-Wal Electric Cooperative Inc , Selby
Larry Brink, Beadle Electric Cooperative Inc , Huron

Investor-Owned Electric Utilities:

Russ Wagner, Northern States Power, Sioux Falls
Tom Gulbranson, Northwestern Public Service, Huron
Bill Giesen, Otter Tail Power, Milbank
Frank Durant, Montana-Dakota Utilities Co , Mobridge
Everett Pompy, Black Hills Power & Light, Rapid City

Municipal Association:

Greg Sherman, Electric Utilities, Brookings
Pete Swanson, Electric Utilities, Watertown
Larry Nelson, Electric Utilities, Arlington
Don Johnson, Electric Utilities, Groton
Frank Josten, Electric Utilities, Sioux Falls

Electrical Contractors:

Dennis Englestad, Englestad Electric, Watertown
Gene Lothrop, Lothrop's Electric, Huron

The JUTS Committee would like to thank the instructors and their companies for their participation in the Fourth Annual Joint Utility Training Workshop Without their involvement this program would not be possible

All instructors are cordially invited to a breakfast at 7 00 a m on Thursday, February 1, at the Staurolite Inn, compliments of the JUTS Committee

Dick Adamson	Allen Bradley Company Fargo, ND
Roger Anderson	Fargo Mfg Company, Inc Buffalo, MN
Larry Bach	General Electric Co Hudson Falls, NY
Douglas Fisher	McGraw-Edison Canonsburg, PA
Rick Garlock	RTE Corporation Waukesha, WI
William Haufschild	Montana-Dakota Utilities Co Moberge, SD
Ralph H Hopkinson	General Electric Co Schenectady, NY
John Kalmuck	RTE Corporation Waukesha, WI
Prof Wayne Knabach	South Dakota State University Brookings, SD
Ralph Larsen	EPA Office, Region VIII Denver, CO
Robert Larson	Radar Engineers Portland, OR
Pete Lee	Ulteig Engineers, Inc Fargo, ND
George Maumee	Norton Company Burnsville, MN
Dennis Merchant	Vo-Tech School Mitchell, SD
Dan Morgan	General Electric Co Hickory, NC
Leo Murphy	Minnesota Department of Adult Ed St Paul, MN
Kurt Peters	Montana-Dakota Utilities Co Bismarck, ND
Dr J O Storry	South Dakota State University Brookings, SD
Lee Tourtelotte	The Klass Company, Inc Minneapolis, MN
Howard Webb	McGraw-Edison Zanesville, OH
Walt Wenino	McGraw-Edison Fergus Falls, MN