



CITY COUNCIL/ELECTRICAL
ADVISORY COMMITTEE

July 9, 2014 – 6:00 p.m.
Regular Meeting

CITY COUNCIL

Marc Tall, Mayor
Ronald Beauchamp, Mayor Pro-Tem
Patricia Baribeau, Council Member
Michael Sattem, Council Member
Ralph Blasier, Council Member

ADMINISTRATION

James V. O'Toole, City Manager
Robert S. Richards, CMC, City Clerk
Ralph B.K. Peterson, City Attorney
Mike Furmanski, Electrical Superintendent
Michael Dewar, City Controller

ELECTRICAL ADVISORY COMMITTEE

Tim Wilson, Chairperson
Ann Bissell, Vice Chairperson
Larry Arkens, Committee Member
Glendon Brown, Committee Member
John Anthony, Committee Member
Vacant Seat
Vacant Seat

Escanaba City Council Chambers: 410 Ludington Street - Escanaba, MI 49829

Meeting Agenda

Wednesday, July 9, 2014

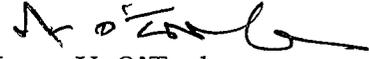
CALL TO ORDER
ROLL CALL
APPROVAL/ADJUSTMENTS TO THE AGENDA
CONFLICT OF INTEREST DECLARATION
NEW BUSINESS

1. **Update - Electric Department –General Operations.**
Explanation: Electrical Superintendent Mike Furmanski will update the City Council, Electrical Advisory Committee and Citizens of Escanaba on the current departmental activities.
2. **Update – Operation and Maintenance of Power Plant – Pro Energy Services, Inc.**
Explanation: Pro Energy Services, Inc. will update the City Council, Electrical Advisory Committee and Citizens of Escanaba on the status of the operation and maintenance of the power plant.
3. **Approval – Equipment Purchase – West Side Substation Pad Mounted Switch.**
Explanation: Administration is seeking Council approval to purchase a pad-mounted switch from Border States Electric for an amount not to exceed \$20,000.
4. **Update – Power Plant Purchase Agreement/Sale.**
Explanation: An update on the sale of the power plant will be provided.

GENERAL PUBLIC COMMENT
COMMISSION/STAFF COMMENT AND ANNOUNCEMENTS
ADJOURNMENT

The City of Escanaba will provide all necessary, reasonable aids and services, such as signers for the hearing impaired and audiotapes of printed materials being considered at the meeting to individuals with disabilities at the meeting/hearing upon five days notice to the City of Escanaba. Individuals with disabilities requiring auxiliary aids or services should contact the City of Escanaba by writing or calling City Hall at (906) 786-9402.

Respectfully Submitted,



James V. O'Toole
City Manager

OFFICIAL PROCEEDINGS
CITY COUNCIL
ELECTRICAL ADVISORY COMMITTEE
CITY OF ESCANABA, MICHIGAN
Special Joint Meeting
Wednesday, June 11, 2014

Pursuit to a meeting notice posted June 6, 2014, and meeting location notice posted on June 11, 2014, the meeting was called to order by the Mayor Marc D. Tall at 6:00 p.m. in the main conference room of the Catherine Bonifas Civic Center located at 225 North 21st Street.

Present: Mayor Marc D. Tall, Council Members, Patricia A. Baribeau, Ronald J. Beauchamp, Ralph B. Blasier (arrived at 6:05 p.m.) and Michael R. Sattem.

Absent: None

Present: Electrical Advisory Committee (EAC) Members: Chairperson Wilson, Larry Arkens, Ann Bissell (arrived at 6:04 p.m.), and Glendon Brown

Absent: John Anthony, Two vacancies, and Power Plant Liaison.

Also Present: City Manager James V. O'Toole, Electric Superintendent Mike Furmanski, City Controller Michael Dewar, City Attorney Ralph B.K. Peterson, Jack Scott of Pro Energy Services, Inc., Charles DeTiege of Escanaba Green Energy (EGE), members of the public and media.

Baribeau moved, Sattem seconded, **CARRIED UNANIMOUSLY**, to approve the agenda as submitted.

UNFINISHED BUSINESS – None

CONFLICT OF INTEREST – None

PUBLIC HEARING – None

NEW BUSINESS

Update - Electric Department –General Operations.

Electrical Superintendent Mike Furmanski updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the current departmental activities.

- Outage at Hospital, located fault and was repaired;
- Working at OSF Rehab Building;
- Working out at the fairgrounds, more Campsites are being put in;
- Continued Annual Pole Replacement Program.

Update– Operation and Maintenance of Power Plant – Pro Energy Services, Inc.

Jack Scott Pro Energy Services, Inc. updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the status of the operation and maintenance of the power plant.

- No accidents or injuries were reported in May;
- No Air Monitoring deviations in the month of May;
- Reviewed dates and hours Power Plant Units ran in May;
- Reported no repairs with the Combustion Turbine.

Approval – Professional Services – Power System Engineering.

Administration sought Council approval to continue the professional services agreement with Power System Engineering of Minneapolis, MN for continued assistance in completing such things as load forecasting, power purchasing option analysis and other technical services as needed.

NB-3 Beauchamp moved, Baribeau seconded, to approve to continue the professional services agreement with Power System Engineering of Minneapolis, MN for continued assistance on an as needed basis for one year, ending June 2015, to complete such things as load forecasting, power purchasing option analysis and other technical services as needed.

Upon a call of the roll, the vote was as follows:

Ayes: Beauchamp, Baribeau, Sattem, Tall
Nays: None
Abstain: Blasier

MOTION CARRIED.

Approval – SSR Agreement.

Administration sought Council approval to enter into an SSR agreement with MISO for the period of June 15, 2014 through June 14, 2015.

NB-4 Blaiser moved, Sattem seconded, **CARRIED UNANIMOUSLY**, to enter into an SSR agreement with MISO for the period of June 15, 2014 through June 14, 2015.

Update – Power Plant Purchase Agreement/Sale.

Charles Detiege of EGE updated Council and the Electrical Advisory Committee on the sale of the Power Plant. Mr. DeTiege advised they expect to close on the loan next

week where EGE will then forward the proof of funds to the City at which time a closing date will be provided.

GENERAL PUBLIC COMMENT – None

COUNCIL/COMMITTEE, STAFF REPORTS – None

ADJOURNMENT

Hearing no further public comment, or further reports from the Electrical Advisory Committee or Council, the meeting adjourned at 6:11 p.m.

Due to a potential meeting notice posting error, action taken at this meeting will be reaffirmed.

Respectfully submitted,

Tammy Weissert
City Deputy Clerk

Approved: _____

Marc D. Tall, Mayor



DATE: June 20, 2014

To the CITY MANAGER:

At the June 19, 2014, regular meeting of the City Council, this matter was referred to you for the appropriate disposal for specific action as indicated:

Council reaffirmed continuation of the professional services agreement with Power System Engineering of Minneapolis, MN for continued assistance on an as needed basis for one year, ending June 2015, to complete such things as load forecasting, power purchasing option analysis and other technical services as needed.

DOCUMENTS ATTACHED:


Robert S. Richards, City Clerk

<input type="checkbox"/> Assessor	<input type="checkbox"/> Library
<input checked="" type="checkbox"/> Clerk/IT Director	<input type="checkbox"/> Marina
<input type="checkbox"/> Community Preservation	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Controller	<input type="checkbox"/> Public Safety
<input type="checkbox"/> Downtown Development Authority	<input type="checkbox"/> Public Works/Engineering
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Recreation/Purchasing
<input type="checkbox"/> Human Resources/Treasurer	<input type="checkbox"/> Water/Wastewater

Please note above which is re-referred for action as below:

<input checked="" type="checkbox"/> To Comply
<input type="checkbox"/> To investigate & report with recommendation
<input type="checkbox"/> To dispose - no report necessary
<input type="checkbox"/> See _____
<input type="checkbox"/> _____

DOCUMENTS ATTACHED:


James V. O'Toole, City Manager



DATE: June 20, 2014

To the **CITY MANAGER:**

At the June 19, 2014, regular meeting of the City Council, this matter was referred to you for the appropriate disposal for specific action as indicated:

Council reaffirmed entering into an SSR agreement with MISO for the period of June 15, 2014 through June 14, 2015.

DOCUMENTS ATTACHED:


Robert S. Richards, City Clerk

<input type="checkbox"/> Assessor	<input type="checkbox"/> Library
<input checked="" type="checkbox"/> Clerk/IT Director	<input type="checkbox"/> Marina
<input type="checkbox"/> Community Preservation	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Controller	<input type="checkbox"/> Public Safety
<input type="checkbox"/> Downtown Development Authority	<input type="checkbox"/> Public Works/Engineering
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Recreation/Purchasing
<input type="checkbox"/> Human Resources/Treasurer	<input type="checkbox"/> Water/Wastewater

Please note above which is re-referred for action as below:

<input checked="" type="checkbox"/> To Comply
<input type="checkbox"/> To investigate & report with recommendation
<input type="checkbox"/> To dispose, no report necessary
<input type="checkbox"/> See
<input type="checkbox"/>

DOCUMENTS ATTACHED:


James V. O'Toole, City Manager

Escanaba Operating Services
Monthly Report
June 2014



Escanaba Generating Station

**Escanaba
Operating
Services**

Executive Summary

The power plant was operated during the month of June 2014, as described in the tables below.

Key Performance Indicators

Measure	Unit of Measure	Month	Year to Date
Steam Plant Gross Electrical Generation	MWH	576	17812
Unit 1 Net Electrical Generation	MWH	263	8067
Unit 2 Net Electrical Generation	MWH	190	7953
Unit 1 Hours of Operation	Hours	50.7	1004.6
Unit 2 Hours of Operation	Hours	47.3	917.9
Coal Consumption	Tons	331	9874
Coal on Dock	Tons	0	0
Steam Plant Net Heat Rate	BTU/KWH	n/a	n/a
Plant Availability	%	86%	86%
Combustion Turbine Gross Electrical Generation	MWH	5	220
Combustion Turbine Station Service	MWH	27.9	242.9
Combustion Turbine Hours of Operation	Hours	1.2	44.2
Fuel Oil Consumption	Gallons	1019	41214
Combustion Turbine Availability	%	100%	100%

Operations Summary

Unit Starts

Unit 1 and Unit 2 were started once during the month. The Combustion Turbine was started once during the month.

Unit	Date	On-Line Time	Off-Line Time	Reason
1	6-9-14	21:00	-	Unit 1 On Load
1	6-11-14		00:04	Unit 1 Off Load
2	6-9-14	07:58		Unit 2 On Load
2	6-11-14		03:25	Unit 2 Off-Load
CTG	6-16-14	12:00	13:30	Miso Request

Unit Trips and Unplanned Outages

Unit	Date	Breaker Open Time	Unit Released	Duration (Hours)	Cause
1	None				
2	Note				
CTG	None				

Planned Outages

Unit	Start Date	Start Time	End Date	End Time	Cause
1	06/12/2014	07:00	07/02/2014	16:00	
2	06/12/2014	07:00	07/02/2014	16:00	
CTG	None				

Forced Outages

Unit	Start Date	End Date	End Time	Load Limit	Cause
1	None				
2	None				
CTG	None				

Maintenance Activities

Plant Major Maintenance Activities for June 2014

Unit 1

Routine maintenance and equipment replacements occurred throughout the month.

Unit 2

Combustion Turbine

There were no repairs required on the Combustion Turbine/Generator.

Balance of Plant Outstanding Issues:

None

Emissions Compliance Overview-Air/Water

- There were no Air Monitoring deviations in the month of June.

Air Monitoring Deviations

Start Date	Start Time	End Date	End Time	Opacity Parameter	Cause
None					

Water – NPDES Permit Deviations

- There were no NPDES violations during the month of June.

Water – Groundwater

- There was one Groundwater deviations during the month of June.

Water Monitoring Deviations

Start Date	End Date	Parameter	Cause
6-17	6-17	pH	Due to Cleaning of the Precipitators, ash was washed into the pond Causing the pH to drop to a pH of 3.

Occupational Safety and Health Overview

OSHA Summary of Work Related Injuries and Illnesses

- 1) There were no OSHA work related injuries or illnesses during the month of June.

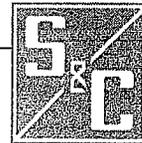
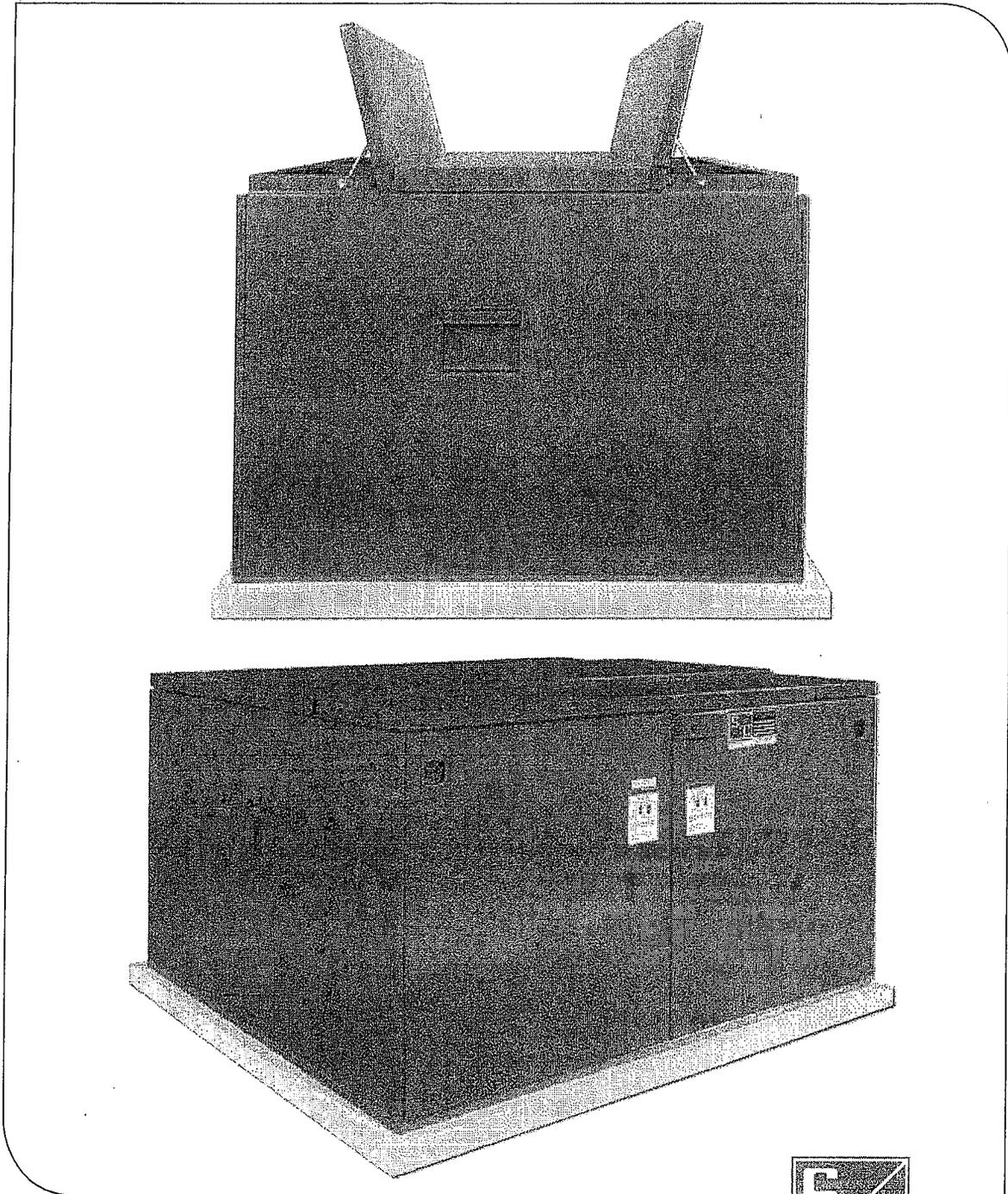
EH&S Incidents – (Near Misses and/or Property Damage)

- 1) There were no lost time accidents, near misses or property damage during the month.

Labor Statistics Labor Statistics (Note: These statistics are for the 2014 calendar year from Jan 1 through December 31.)

Item	Month	Year to Date
Total Man-Hours Worked	3316	18486.58
Total Number of Standard Time (ST) Hours	2833.5	15271
Total Number of Overtime (OT) Hours	172.5	1474.5
Total Number of Double Time (DT) Hours	310	1661.25

NB-3



S&C Manual PME Pad-Mounted Gear

Outdoor Distribution, 14.4 kV and 25 kV

S&C Manual PME Pad-Mounted Gear . . . Featuring Elbow-Connected Encased Components.

S&C Manual PME Pad-Mounted Gear brings in-air insulation, in-air switching, and quick, convenient, fuse handling to elbow-connected gear. Switch and fuse components are protected and isolated within an inner air-insulated, grounded, steel-enclosed component compartment that provides excellent resistance to entry of foliage, wildlife, and contaminants, and reduces exposure of the public and operating personnel to energized live parts. Switch terminals are equipped with 600-ampere bushings and fuse terminals are equipped with 200-ampere bushing wells that have interfaces designed in accordance with IEEE Standard 386 to accept all standard elbows and accessories. Bushings and bushing wells are mounted a minimum of 25 inches above the base of the gear . . . all elbows may be readily operated at a convenient angle from a standing position.

The termination compartments are accessible through doors equipped with the S&C Penta-Latch® Mechanism—the *automatic* door-latching system.

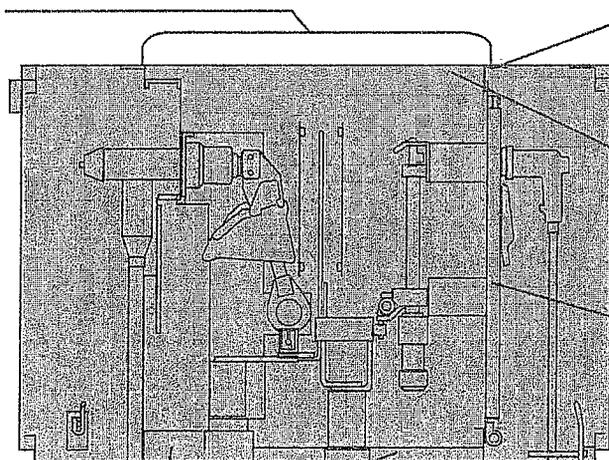
Three-phase in-air switching of source circuits is accomplished with externally operable S&C Mini-Rupter® Switches. Large viewing windows in switch-termination compartments allow visual verification of switch-blade position—there's no need to move the 600-ampere elbows to establish working clearances. Fuse access is provided by the S&C TransFuser™ Mounting. This mounting incorporates a unique fuse-handling mechanism that allows easy movement of fuses to the open, de-energized position for ready access. These mountings accommodate a choice of S&C Type SME-20 and SME-4Z Power Fuses, S&C Fault Fiter® Electronic Power Fuses, or a variety of current-limiting fuses.

Completely Encased Medium-Voltage Components

No exposed energized components in either switch or fuse termination compartments—

Moisture and contamination control . . . there are no direct air paths into the component compartments—

- ▶ Inner grounded steel compartment encases the Mini-Rupter Switches, fuses, and interconnecting bus



- ▶ Resilient gasketing seals roof to compartment bulkheads and enclosure walls

- ▶ Insulating "no-drip" undercoating checks roof condensation

- ▶ Dense closed-cell gaskets seal TransFuser Mountings to compartment bulkhead

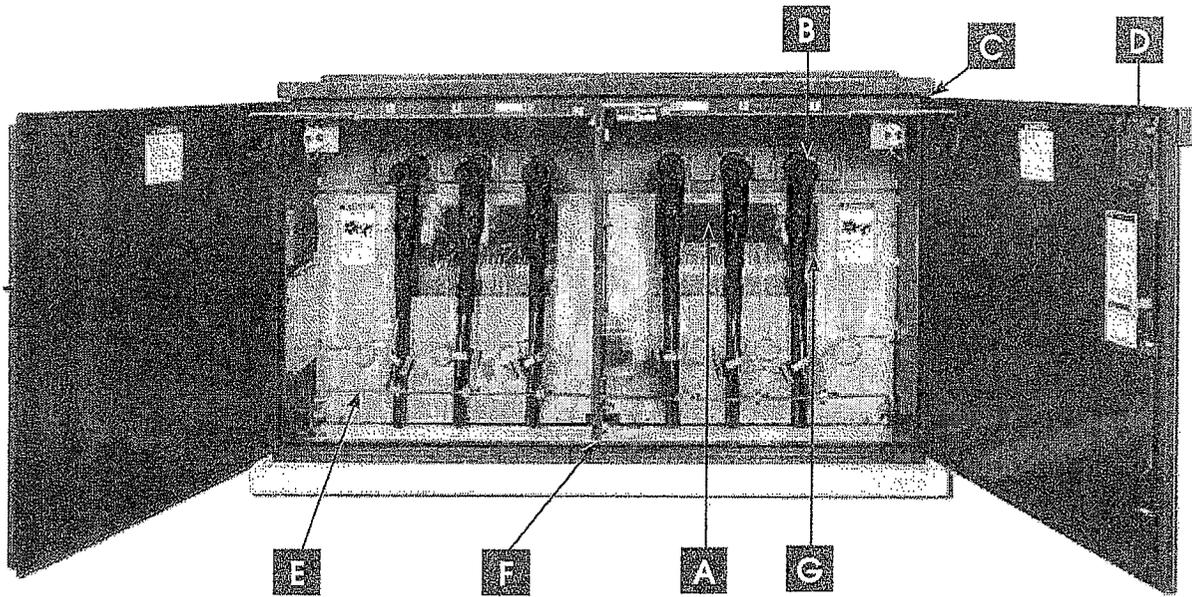
Foliage and wildlife control—

- ▶ Galvanized steel floor prevents entry from bottom of component compartment

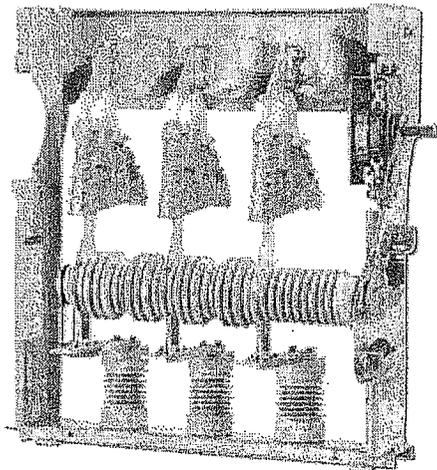
Side-view cross section of Model PME-9.



Switch Compartments



A	Wide-view, unbreakable, mar-resistant windows let you verify switch position and check for visible break.
B	600-Ampere Cyproxy® bushings have interfaces in accordance with IEEE Standard 386.
C	Corrosion-resistant non-ferrous door hinges and hinge pins.
D	Penta-Latch® Mechanism provides vandal-resistant, automatic, three-point door latching. Uncommonly rugged and fully coordinated with padlocking provisions.
E	Ground rod extends full width of each switch compartment—doors may be closed with grounding clamps in place.
F	Segregated compartments—steel barriers isolate side-by-side cable compartments.
G	Deep, spacious termination compartments accommodate a wide range of elbows and accessories with the doors closed.

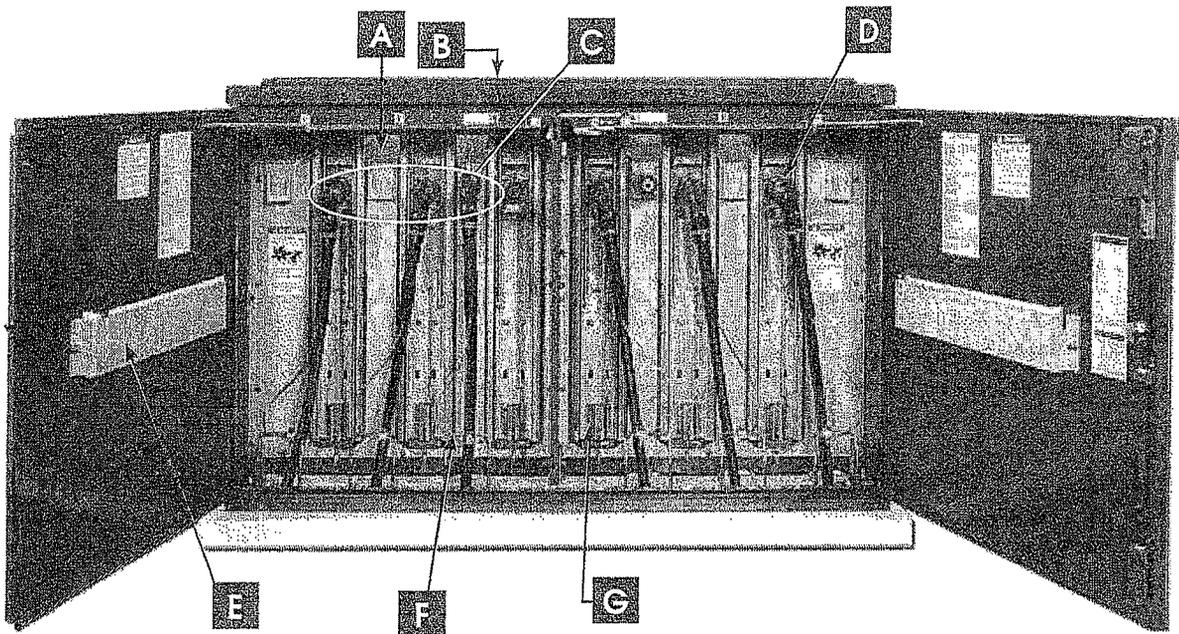


Mini-Rupter® Switches

S&C Mini-Rupter Switches, rated 600 ampere continuous, provide controlled circuit interruption by deionizing action within the unique arc compressors—there is no external arc or flame. The switches handle all your three-pole loop splitting load dropping requirements up through 600 amperes at 14.4 kV and 25 kV. And the 14.4-kV Mini-Rupter features a 25,000 ampere short-circuit rating, in addition to having a 25,000 ampere three-time duty-cycle fault-closing rating. 25-kV Mini-Rupters are rated 12,500 amperes and carry a 12,500 ampere three-time duty-cycle fault-closing rating.



Fuse Compartments



A	Viewing windows allow easy checking of blown-fuse indicators.
B	S&C's Ultracur® finishing system withstands more than 4,000 hours of salt-spray testing—compared to industry-standard 1,500 hours.
C	Generous spacing of bushing wells and parking stands accommodates a full spectrum of elbows, portable feed-thrus, and accessories.
D	200-Ampere Cypoxy® bushing wells have interfaces in accordance with IEEE Standard 386.
E	Fuse-storage feature accommodates spare fuse assemblies.
F	Ground rings are readily accessible in up-front location. Enclosure doors may be closed with grounding clamps in place.
G	Up-front access to fuses takes the hassle out of fuse changeout. With an almost effortless pull, TransFuser® unlatches and pivots to its open position, making the de-energized and isolated fuse accessible for easy replacement.

Fuses

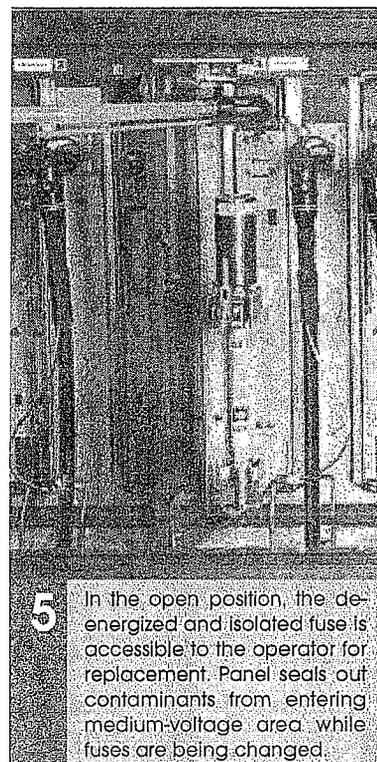
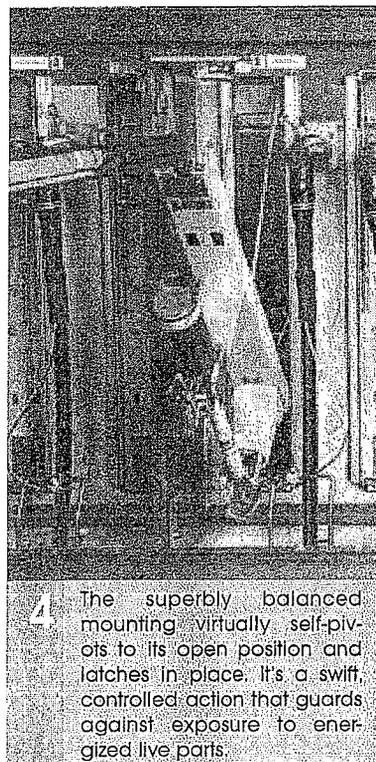
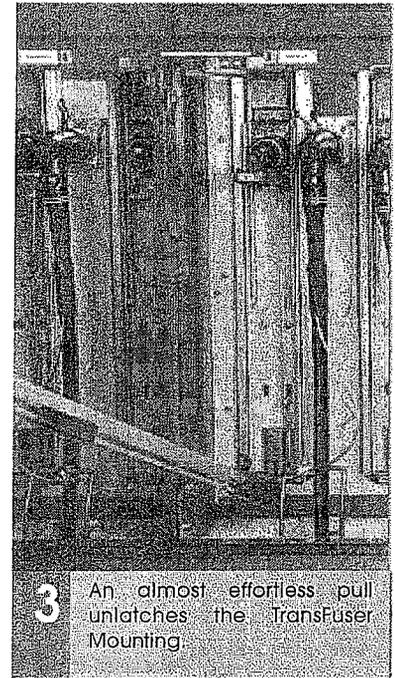
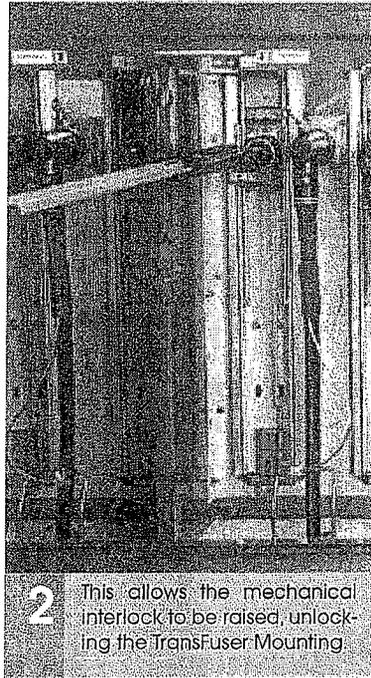
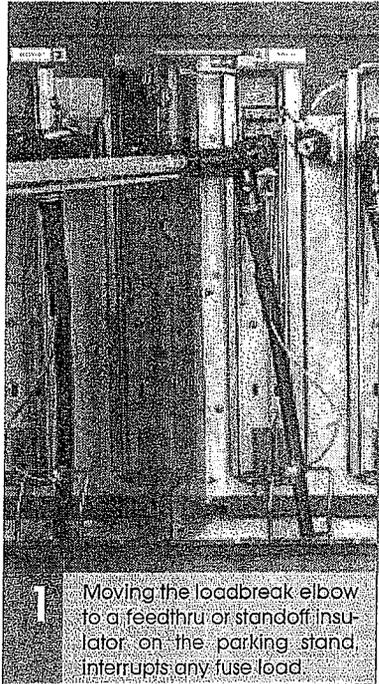
Type SME-20 Power Fuses, featuring the S&C SMU-20 Fuse Unit, and Type SME-4Z Power Fuses, featuring the S&C SM-4 Refill Unit—are widely applied on utility systems. They offer a broad selection of ampere ratings and time-current characteristics (TCCs), permitting close fusing of loads for full-fault-spectrum protection and optimum coordination.

Fault Fiter® Electronic Power Fuses, with their unprecedented variety of unique TCCs, provide superior protection and precise coordination in a wide range of applications. Fault Fiter Electronic Power Fuse Mountings also accommodate a variety of non-S&C-manufactured single-barrel current limiting fuses.



TransFuser Mountings

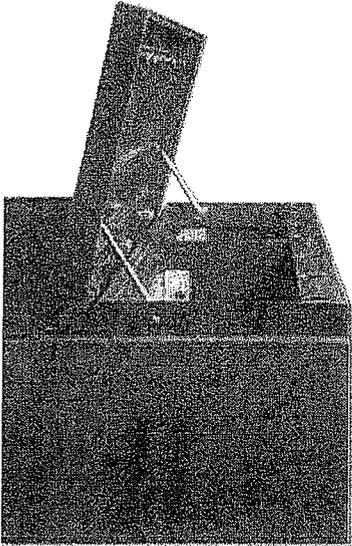
The unique TransFuser fuse-handling system takes the work out of fuse replacement. Operators are not directly exposed to energized live parts.



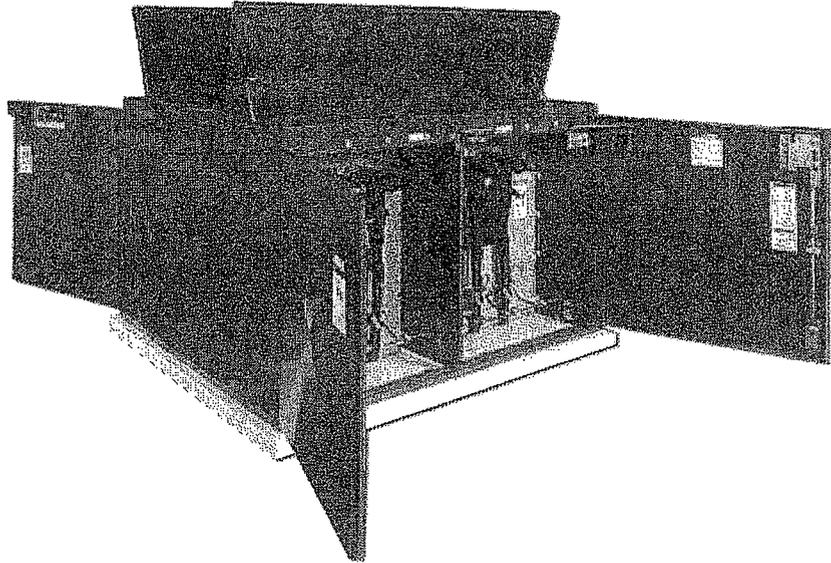
Hinged Roof

The three-piece roof design features hinged sections over the cable compartments. The hinged roof allows cables to be pulled up through the roof opening, rather than the door openings, making installation easier and quicker.

A mechanical interlock prevents full engagement of the Penta-Latch® Mechanism unless the hinged roof section is closed and latched.

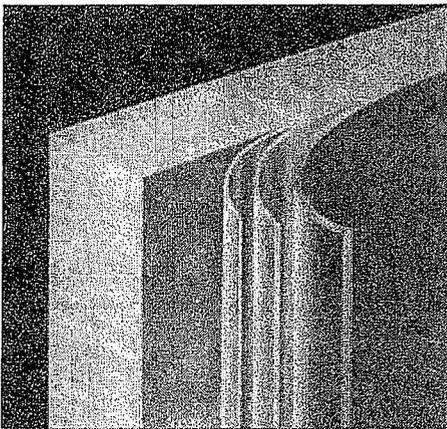


Hinged roof detail.



Overall view of gear with hinged roof.

Exceptional Durability



11-Gauge Steel Construction

The enclosure is fabricated from rugged 11-gauge steel sheet. All structural joints are welded—there are no externally bolted panels to invite removal.

S&C's Ultradur® Finish

Protecting the steel is S&C's Ultradur Finishing System—an extremely tough, uniform finish that is, through baking, ceramic-like in performance and appearance. It resists underfilm propagation of corrosion, guards against the widest variety of atmospheric contaminants, resists moisture damage, and withstands exposure to ultraviolet rays without chalking.

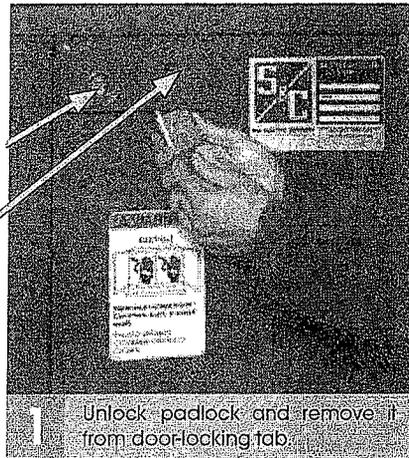
Penta-Latch Mechanism

Provides vandal-resistant, automatic, three-point door latching. Uncommonly rugged and fully coordinated with padlocking provisions.

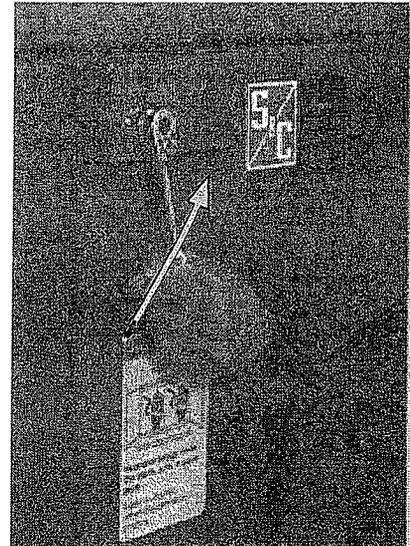
Two-Step Controlled Opening of Doors

Precision recessing and spring loading of pentahead actuator discourage tampering

Protective hood shields padlock shackle from vandals

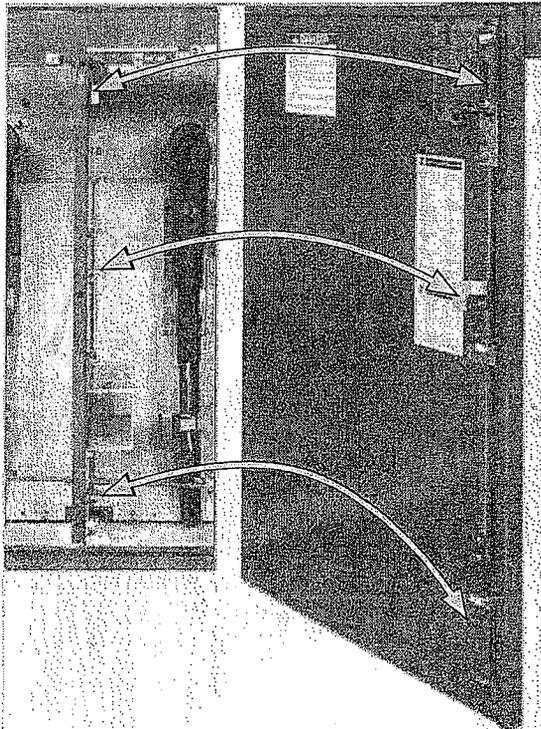


1 Unlock padlock and remove it from door-locking tab.

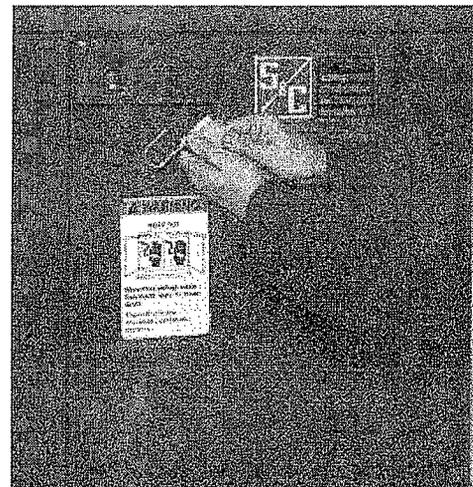


2 A single motion of a penthead wrench unlatches the Penta-Latch Mechanism for opening and simultaneously recharges it in preparation for closing.

Double Security for Extra Vandal Resistance



1 Closing the door releases the charged Penta-Latch Mechanism, automatically latching the door at three points and securing the pentahead actuator.



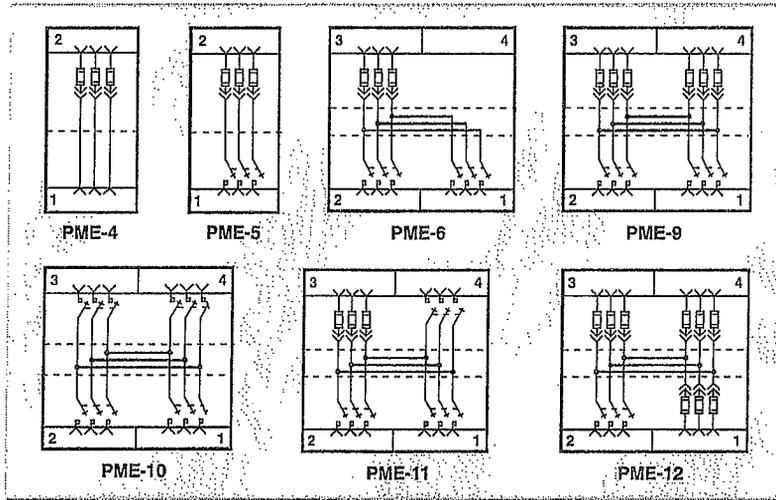
2 Only after the door is latched and the pentahead actuator is secured in this manner can the padlock be installed—completing the full two-step security system.



Circuit Configurations

Seven models of S&C Manual PME Pad-Mounted Gear provide you with a choice of circuit configurations

for switching and protection of your underground distribution system.



Ratings

Voltage, kV			Fuse Type	Current, Amperes			Short-Circuit		MVA
Nom.	Max.	BIL		Fuse	Mini-Rupter Switch		Current, Amperes		
				Max.	Cont.	Load-Dropping	One-Second Short-Time Withstand, RMS, Sym.	Peak Withstand, Peak	
14.4	17.5	95	None	—	600	600	25 000	65 000	620
	17.0		SME-20	200			14 000	36 400	350
	17.0		SME-4Z	200			12 500	32 500	310
	17.0		Fault Filter	200			14 000 [⊖]	36 400 [⊖]	350 [⊖]
25	27 [⊖]	125	None	—	600	600	12 500	32 500	540
			SME-20	200			12 500	32 500	540
			SME-4Z	200			12 500 [▲]	32 500 [▲]	540 [▲]
			Fault Filter	200			12 500	32 500	540

⊖ 29 kV when furnished with Fault Filter Electronic Power Fuses.

⊙ When furnished with current-limiting fuses having a rated maximum interrupting current of at least 25,000 amperes, RMS, symmetrical, and limiting the instantaneous peak let-through current to less than 36,000 amperes, this gear has the following short-circuit ratings:

- 25,000 amperes, RMS, symmetrical, one-second short-time withstand current;
- 65,000 amperes, peak, peak withstand current;
- 620 MVA, three-phase symmetrical, at rated nominal voltage.

▲ Applicable to solidly grounded-neutral systems only, with fuses connected by single-conductor, concentric-neutral-type cable to a transformer(s). For all other applications this gear has the following short-circuit ratings:

- 9,400 amperes, RMS, symmetrical, one-second short-time withstand current;
- 25,000 amperes, peak, peak withstand current;
- 405 MVA, three-phase symmetrical, at rated nominal voltage.

The Rural Utilities Service has accepted all S&C Manual PME Pad-Mounted Gear. UL-listed 14.4-kV models are optionally available.

Printed in U.S.A.

Descriptive Bulletin **665-30**

November 9, 2009©

Offices Worldwide ■ www.sandc.com



S&C ELECTRIC COMPANY

Excellence Through Innovation



BORDER STATES
Supply Chain Solutions™

Border States Electric Supply
Electrical Wholesale Supply of Utah

Border States Electric - KIN
201 N Hooper Street
Kingsford MI 49802-5468
Phone: 906-774-1641

Escanaba City of
City Hall-Accts Payable
P.O. Box 948
Escanaba MI 49829

Quote

BSE Quote: 23332875
Sold-to Acct #: 8611
Valid From: 07/03/2014 **To:** 07/10/2014
PO No: MIKE F.
PO Date: 07/03/2014

Created By: Frederick Mitchell
Tel No: 906-779-0402
Fax No: 906-774-1716

Inco Terms:
FOB ORIGIN

Payment Terms:
Net 25th prox

Taxes, if applicable, are not included.

Cust Item	BSE Item	Material MFG - Description	Quantity	Price	Per UoM	Value
	000010	- 65242R1-M1 14400 VOLT PME-10 PADMOUNTED	1 EA	19,689.00 / 1	EA	19,689.00

Total Value **19,689.00**

To access BSE's Terms and Conditions of Sale, please go to
<https://www.borderstateselectric.com>

This quote has not been reviewed for compliance with the Buy American Act or the American Recovery and Reinvestment Act requirements. BSE reserves the right to amend both our bill of material and our proposal accordingly if BAA/ARRA compliance is required.