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July 7, 2023

Mr. John Burbridge
Wyoming Public Service Commission
Hansen Building, Suite 300
2515 Warren Avenue
Cheyenne, WY 82002

Re: Docket No. 10014-229-CT-23/ Record No. 17274
Supplemental Filing No. 3 to Application for Changes to Rules and Regulations

Dear Mr. Burbridge,

Per suggested changes cited by Commission Staff on the above referenced Docket, please accept this Supplemental Filing containing revised Exhibits F and G pertaining to pages 49R-54R.

An original printed version has been mailed to your attention.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Brian J. Mills".

Brian J. Mills
Chief Executive Officer

BJM/sjp

Enclosure

Meter Testing and Verification Program

Section IX

RULES AND REGULATIONS OF SERVICE

Section IX

METER TESTING AND VERIFICATION PROGRAM

I. GENERAL STATEMENT

In compliance with the Wyoming Public Service Commission's (Commission's) adopted Rule in Chapter 3, Section 18 (Meter Testing Program), the Corporation has developed and submitted the following Meter Testing and Verification Program. The intent of this Meter Testing and Verification Program is to develop a program for the calibration, recertification, care, and maintenance of meters, recording devices, field testing equipment, and meter calibration equipment ~~in order to~~ keep the equipment in proper working condition. The Corporation, or its certified contractors, has all necessary meters, instruments, meter calibration equipment, and facilities necessary to carry out its meter-testing program. The facilities and equipment are available for inspection by any authorized representative of the Commission. Finally, meter verifications, test results, and audit data as well as equipment calibration records are kept electronically in accordance with Chapter 3, Section 14 (Record) and available upon Commission request or as otherwise required by the Commission's and Corporation's Rules and Regulations ~~with regard to~~regarding member requests.

II. RULES AND GUIDELINES

~~B.A.~~ The Corporation's Meter Testing and Verification program shall conform as applicable to the following guidelines and rules:

1. RUS Bulletin 1730-1;
2. RUS Form 300;
3. Wyoming Public Service Commission, Chapter 3, Section 18.

III. METER ACCURACY

A. The Corporation's Meter Testing and Verification program will statistically verify meter accuracy according to:

1. ANSI for Electric Meters Code for Electric Metering (ANSI C12.1)
2. American National Standard Sampling Procedures and Tables for Inspection by Variables for Percent Non-Conforming (ANSI/ASQ Z1.9-2008) for sampling.

Issued by

~~Michael E. Easley~~Brian J. Mills, Chief Executive Officer

Issued: ~~July 6, 2023~~May 4, 2021

Effective: ~~-June 1, 2023~~1

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Meter Testing and Verification Program

Section IX

B. The Corporation will verbally advise members about the contents of the ANSI Standards in person or by phone. If the member desires to personally review the ANSI Standards, they may do so in one of the Corporation's main offices in Sundance, Gillette, or Sheridan. Prior to such review, they must read and acknowledge the ANSI Standards licensing requirements and affirm that they will not copy or reproduce them in any manner.

III. METER ACCURACY (cont'd)

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Meter Testing and Verification Program

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~~METER ACCURACY (cont'd)~~

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IV. QUALIFICATIONS

A. The Corporation will meet the following qualifications:

1. One hundred percent (100%) testing of all meters by the manufacturer prior to shipment to the Corporation;
- ~~1. Quality assurance testing of all meters by Corporation personnel before initial installation (testing information will be loaded into the Corporation's billing system for historical reference);~~
2. Minimum of eight percent (8%) (eight [8] of ninety-six [96] per pallet) of meters received new by Corporation personnel shall be quality assurance tested by the Corporation.;
- ~~2.3. Ability to monitor all in-service meters for performance through daily read rates;~~
- ~~3.4. Ability to evaluate member usage abnormalities through daily reads; Ability to monitor member usage abnormalities on a daily basis;~~
5. Field test and verify all instrument rated meters and associated instrumentation transformers once every three (3) years; and
6. Meter forms other than instrument rated meter forms will be random sample tested per the Metering Testing and Verification Schedule; and
- ~~4. Random sample testing and field verification of meters after ten (10) years in service (explained in detail below);~~
- ~~5. Field test and verify all instrument rated meters and associated instrumentation transformers once every three (3) years; and~~
7. Testing results will be stored in the Corporation's billing system for historical reference.

Table 1. Meter Forms and Associated Information

<u>Meter Number Starting Letter</u>	<u>NEMA Form</u>	<u>Number of Phases</u>	<u>Class in Amps</u>	<u>Voltage</u>	<u>Application</u>	<u>Number of Wires</u>
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<u>Z or TZ</u>	<u>1S</u>	<u>1</u>	<u>100 or 200</u>	<u>120</u>	<u>Self-contained</u>	<u>2</u>
<u>T</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>J</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>HJ</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>HT</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>U</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>H</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>A or DA</u>	<u>2S</u>	<u>1</u>	<u>320</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>N</u>	<u>12S</u>	<u>1 & 3</u>	<u>200</u>	<u>120-480</u>	<u>Self-contained</u>	<u>3</u>
<u>E</u>	<u>16S</u>	<u>3</u>	<u>20</u>	<u>120-480</u>	<u>Self-contained</u>	<u>4</u>
<u>V or DV</u>	<u>3S</u>	<u>1</u>	<u>10 or 20</u>	<u>120, 240, 480</u>	<u>Instrument-rated</u>	<u>2</u>
<u>Y</u>	<u>4S</u>	<u>3</u>	<u>10 or 20</u>	<u>240</u>	<u>Instrument-rated</u>	<u>3</u>
<u>M</u>	<u>5S</u>	<u>3</u>	<u>20</u>	<u>120-480</u>	<u>Instrument-rated</u>	<u>4</u>
<u>R</u>	<u>5S, 6S, 9S</u>	<u>3</u>	<u>20</u>	<u>120-480</u>	<u>Instrument-rated</u>	<u>3 or 4</u>

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<u>Meter Number Starting Letter</u>	<u>NEMA Form</u>	<u>Number of Phases</u>	<u>Class in Amps</u>	<u>Voltage</u>	<u>Application</u>	<u>Number of Wires</u>
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<u>T</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>J</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
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<u>HT</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>U</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>H</u>	<u>2S</u>	<u>1</u>	<u>200</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>A or DA</u>	<u>2S</u>	<u>1</u>	<u>320</u>	<u>240</u>	<u>Self-contained</u>	<u>3</u>
<u>N</u>	<u>12S</u>	<u>1 & 3</u>	<u>200</u>	<u>120-480</u>	<u>Self-contained</u>	<u>3</u>
<u>E</u>	<u>16S</u>	<u>3</u>	<u>20</u>	<u>120-480</u>	<u>Self-contained</u>	<u>4</u>
<u>V or DV</u>	<u>3S</u>	<u>1</u>	<u>10 or 20</u>	<u>120, 240, 480</u>	<u>Instrument-rated</u>	<u>2</u>
<u>Y</u>	<u>4S</u>	<u>3</u>	<u>10 or 20</u>	<u>240</u>	<u>Instrument-rated</u>	<u>3</u>
<u>M</u>	<u>5S</u>	<u>3</u>	<u>20</u>	<u>120-480</u>	<u>Instrument-rated</u>	<u>4</u>
<u>R</u>	<u>5S, 6S, 9S</u>	<u>3</u>	<u>20</u>	<u>120-480</u>	<u>Instrument-rated</u>	<u>3 or 4</u>

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Michael E. Easley Brian J. Mills, Chief Executive Officer

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Meter Testing and Verification Program

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Meter Number Starting Letter	NEMA Form		Phase	Class (Amps)	Voltage	Application	Number of Wires
TZ	1S		1 \square	100 or 200	120	Self-contained	2
T	2S		1 \square	200	240	Self-contained	3
U	2S		1 \square	200	240	Self-contained	3

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QUALIFICATIONS (cont'd)

H	2S	1□	200	240	Self-contained	3
A	2S	1□	200	240	Self-contained	3
N	12S	1□ & 3□	200	120-480	Self-contained	3
V	3S	1□	10 or 20	120, 240, 480	Instrument-rated	2
Y	4S	3□	10 or 20	240	Instrument-rated	3
W	16S	3□	200	120-480	Self-contained	4
E	16S	3□	20	120-480	Self-contained	4- Reactive
M	5S	3□	20	120-480	Instrument-rated	4
P	6S	3□	20	120-480	Instrument-rated	4
X	9S	3□	20	120-480	Instrument-rated	4
R	5S, 6S, 9S	3□	20	120-480	Instrument-rated	3 or 4 Reactive

IV. QUALIFICATIONS (cont'd)

AAAAAA. Test Equipment

B. The Corporation uses a variety of equipment to test meters and associated instrumentation. This equipment includes the following list along with the calibration schedule. All calibrations on test equipment conform to ANSI standards and manufacturer recommendations. All calibration is done by a third-party, certified contractor, or by the manufacturer of the equipment. These calibration records are available for inspection upon request or as required by the Commission. All equipment has protective cases which are used for transport between job locations to ensure there is no damage or issues that may affect testing results. These cases are stored in temperature-controlled environments when not in use and are only taken out during actual testing procedures. In cases where results may not seem correct to the technician, there are several devices for each model type so results can be cross checked between two devices, as appropriate, to provide correct validation.

1. Laboratory Meter Test Boards (calibrated annually)
 - a. Radian Research – Models RFL 5800, WECO 2350, and WECO 4050
2. Portable Test Sets (calibrated annually)

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Powder River Energy Corporation
P.O. Box 930
Sundance, WY 82729

Wyoming PSC No. 10

~~2nd 1st Revised Sheet No. 500R~~
Cancels ~~Original 1st Revised Sheet No. 500R~~

Meter Testing and Verification Program

Section IX

- a. Probewell – Models MT-1, MT-1/NT9, MT-1NT
3. Instrumentation Test Equipment (calibrated bi-annually)
 - a. SpinLab Bird Dog – Models 5000, 6000

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Meter Testing and Verification Program

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V. METER TESTING AND VERIFICATION SCHEDULE

A. The schedule for meter testing and verification will consist of the following:

1. All ~~single phase~~ and ~~three phase~~ demand billed accounts, including ~~three phase~~ instrument rated metered accounts and substation meters, will be tested, and verified at least once every three (3) years. The Current Transformers (CTs) and Potential Transformers (PTs) for these metering points will also be tested with test results stored in the Corporation's records.
2. All 69-kV metered accounts will be tested and verified once every six (6) months. The Current Transformers (CTs) and Potential Transformers (PTs) for these metering points will also be tested with test results stored in the Corporation's records.
3. A random sample, from each of the remaining meter form types (specifically 2S, 12S, and 16S) will be selected to be tested/verified annually according to the ANSI guidelines listed above. If more than four (4) percent (4%) of the meters within each meter form type listed above are not within a +/- two percent (2%) compliance, another random sampling of meters from that form type will be chosen to be tested/verified. Additionally, if a Corporation meter, when tested, in any form group varies more than +/- two percent (-2%), the Corporation will replace that meter at the time of test/verification. Once a meter has been randomly selected for testing, it will be taken out of the list of potential meters for random selection for the next five (5) years.

0.

V. METER TESTING AND VERIFICATION SCHEDULE ((cont'd))

Please refer to Table 1 above for a complete list and description of each NEMA meter type currently used in active meters on the Corporation's system. Additionally, forms for verifying field information are taken directly from the Service Orders for each test/verification. Service Orders are generated out of information currently residing in the Corporation's billing system (CIS). After field information is gathered/verified, the Corporation's billing system is matched/updated with all appropriate information.

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Meter Testing and Verification Program

Section IX

~~METER TESTING AND VERIFICATION SCHEDULE (cont'd)~~

D.B. Meter Testing and Verifications

For meter tests and verifications, the following information is gathered or verified:

- Meter number
- Secondary meter number
- Meter type
- ~~Register type~~
- ~~Usage dials~~
- ~~Meter phase~~
- Number of wires
- Manufacturer
- Meter type description
- NEMA form
- Class
- Amps
- Volts
- Base KH
- Register ratio
- Technician name
- ~~Actual number of dials~~
- Rate
- Revenue Class
- Seal
- Billing multiplier
- Present reading
- Previous reading
- Demand reading (if applicable)
- ~~Power factor~~
- ~~Township, Range, Section~~
- ~~Latitude/Longitude~~
- ~~Transformer capacity~~
- Date of test/verification

E.C. Potential Transformer (PT) Tests and Verifications

For field meter tests and verifications, the following information is gathered or verified:

- System voltage
- Ratio
- Accuracy
- Fused (yes/no)
- ~~Latitude/Longitude~~
- Date of test
- Technician name

F.D. Current Transformer (CT) Tests and Verifications

For field meter tests and verifications, the following information is gathered or verified:

- System voltage
- Ratio
- Accuracy
- Short time rating
- ~~Latitude/Longitude~~
- Date of test
- Technician name

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Meter Testing and Verification Program

Section IX

V.

METER TESTING AND VERIFICATION SCHEDULE ((cont'd))

G.E. Instrument Rated Services

The Corporation is required to test instrument rated services once every three (3) years.

H.F. Self-Contained Services

The Corporation will conduct the following inspection and testing at each self-contained service within the randomly sampled NEMA form type groups.:

1. Conduct a visual inspection of the service noting or completing anything that needs to be fixed:
 - a. Meter;
 - b. Seal;
 - c. Meter base;
 - d. Display;
 - e. General appearance of service (e.g., excellent, good, fair, poor, needs attention);
2. Take a picture of the service;
3. Record meter reading from dials or electronic display.:

VI. METER TESTING AND VERIFICATION RECORDS

Meter records for all meters shall be retained for the life of the meter and shall indicate for each meter owned or used, the identifying number, name of manufacturer, type, capacity, date of purchase or other acquisition, installation date, its current ~~location~~location, and all results of meter tests.

A. All required meter tests shall be properly referenced to the meter record. The record of each test made shall show:

1. The identifying number and constants of the meter (the standard meter and other measuring devices used).:
2. The date and kind of test made.:
3. The reason for the test.:
4. The reading of the meter before the test.:
5. The error or percent accuracy at each tested load; and
6. The test results and sufficient data to permit calculation verification.

B. The names and addresses of all customers with the identifying number of related meter(s) shall be retained for at least three years.

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~~2nd 1st~~-Revised Sheet No. ~~5434~~R
Cancels ~~1st Revised~~~~Original~~ Sheet No. ~~5434~~R

Meter Testing and Verification Program

Section IX

C. These records shall be retained:

1. The daily record of the load and a monthly record of the output of its plants. For stations not having operators in continuous attendance, only monthly records are required.

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Meter Testing and Verification Program

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VI. METER TESTING AND VERIFICATION RECORDS (cont'd)

Each utility purchasing electrical energy shall provide to the Commission, upon request, information as to the monthly purchases, including demand where measured. For stations having operators in continuous attendance, regular readings of all station instruments and meters shall be made and recorded in such detail as to indicate the character of service being rendered. These records shall be retained for a minimum of three ~~years;~~ years.

2. Maps and records showing the location, voltage and conductor size of transmission and primary distribution facilities, substations and switching facilities. These records shall be retained for the life of the facility.

~~4. If there is a 100 kWh or more discrepancy between the endpoint and the meter, the meter will be replaced at the time of testing.~~

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II. RULES AND GUIDELINES

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 2. RUS Form 300;
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Meter Testing and Verification Program

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III. METER ACCURACY (cont'd)

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A. The Corporation will meet the following qualifications:

1. One hundred percent (100%) testing of all meters by the manufacturer prior to shipment to the Corporation;
2. Minimum of eight percent (8%) (eight [8] of ninety-six [96] per pallet) of meters received new by Corporation personnel shall be quality assurance tested by the Corporation;
3. Ability to monitor all in-service meters for performance through daily read rates;
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5. Field test and verify all instrument rated meters and associated instrumentation transformers once every three (3) years;
6. Meter forms other than instrument rated meter forms will be random sample tested per the Metering Testing and Verification Schedule; and
7. Testing results will be stored in the Corporation's billing system for historical reference.

Table 1. Meter Forms and Associated Information

Meter Number Starting Letter	NEMA Form	Number of Phases	Class in Amps	Voltage	Application	Number of Wires
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J	2S	1	200	240	Self-contained	3
HJ	2S	1	200	240	Self-contained	3
HT	2S	1	200	240	Self-contained	3
U	2S	1	200	240	Self-contained	3
H	2S	1	200	240	Self-contained	3
A or DA	2S	1	320	240	Self-contained	3
N	12S	1& 3	200	120-480	Self-contained	3
E	16S	3	20	120-480	Self-contained	4
V or DV	3S	1	10 or 20	120, 240, 480	Instrument-rated	2
Y	4S	3	10 or 20	240	Instrument-rated	3
M	5S	3	20	120-480	Instrument-rated	4
R	5S, 6S, 9S	3	20	120-480	Instrument-rated	3 or 4

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 Brian J. Mills, Chief Executive Officer

Meter Testing and Verification Program

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IV. QUALIFICATIONS (cont'd)

B. Test Equipment - The Corporation uses a variety of equipment to test meters and associated instrumentation. This equipment includes the following list along with the calibration schedule. All calibrations on test equipment conform to ANSI standards and manufacturer recommendations. All calibration is done by a third-party, certified contractor, or by the manufacturer of the equipment. These calibration records are available for inspection upon request or as required by the Commission. All equipment has protective cases which are used for transport between job locations to ensure there is no damage or issues that may affect testing results. These cases are stored in temperature-controlled environments when not in use and are only taken out during actual testing procedures. In cases where results may not seem correct to the technician, there are several devices for each model type so results can be cross checked between two devices, as appropriate, to provide correct validation.

1. Laboratory Meter Test Boards (calibrated annually)
 - a. Radian Research – Models RFL 5800, WECO 2350, and WECO 4050
2. Portable Test Sets (calibrated annually)
 - a. Probewell – Models MT-1, MT-1/NT9, MT-1NT
3. Instrumentation Test Equipment (calibrated bi-annually)
 - a. SpinLab Bird Dog – Models 5000, 6000

V. METER TESTING AND VERIFICATION SCHEDULE

A. The schedule for meter testing and verification will consist of the following:

1. All single phase and three phase demand billed accounts, including three phase instrument rated metered accounts and substation meters, will be tested, and verified at least once every three (3) years. The Current Transformers (CTs) and Potential Transformers (PTs) for these metering points will also be tested with test results stored in the Corporation's records.
2. All 69 kV metered accounts will be tested and verified once every six (6) months. The Current Transformers (CTs) and Potential Transformers (PTs) for these metering points will also be tested with test results stored in the Corporation's records.
3. A random sample, from each of the remaining meter form types (specifically 2S, 12S, and 16S) will be selected to be tested/verified annually according to the ANSI guidelines listed above. If more than four percent (4%) of the meters within each meter form type listed above are not within a +/- two percent (2%) compliance, another random sampling of meters from that form type will be chosen to be tested/verified. Additionally, if a Corporation meter, when tested, in any form group varies more than +/- two percent (2%), the Corporation will replace that meter at the time of test/verification. Once a meter has been randomly selected for testing, it will be taken out of the list of potential meters for random selection for the next five (5) years.

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Meter Testing and Verification Program

Section IX

V. METER TESTING AND VERIFICATION SCHEDULE (cont'd)

Please refer to Table 1 above for a complete list and description of each NEMA meter type currently used in active meters on the Corporation's system. Additionally, forms for verifying field information are taken directly from the Service Orders for each test/verification. Service Orders are generated out of information currently residing in the Corporation's billing system (CIS). After field information is gathered/verified, the Corporation's billing system is matched/updated with all appropriate information.

B. Meter Testing and Verifications

For meter tests and verifications, the following information is gathered or verified:

- Meter number
- Secondary meter number
- Meter type
- Number of wires
- Manufacturer
- Meter type description
- NEMA form
- Class
- Amps
- Volts
- Base KH
- Register ratio
- Technician name
- Rate
- Revenue Class
- Seal
- Billing multiplier
- Present reading
- Previous reading
- Demand reading (if applicable)
- Date of test/verification

C. Potential Transformer (PT) Tests and Verifications

For field meter tests and verifications, the following information is gathered or verified:

- System voltage
- Ratio
- Accuracy
- Fused (yes/no)
- Date of test
- Technician name

D. Current Transformer (CT) Tests and Verifications

For field meter tests and verifications, the following information is gathered or verified:

- System voltage
- Ratio
- Accuracy
- Short time rating
- Date of test
- Technician name

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V. METER TESTING AND VERIFICATION SCHEDULE (cont'd)

E. Instrument Rated Services

The Corporation is required to test instrument rated services once every three (3) years.

F. Self-Contained Services

The Corporation will conduct the following inspection and testing at each self-contained service within the randomly sampled NEMA form type groups.

1. Conduct a visual inspection of the service noting or completing anything that needs to be fixed:
 - a. Meter;
 - b. Seal;
 - c. Meter base;
 - d. Display;
 - e. General appearance of service (e.g., excellent, good, fair, poor, needs attention);
2. Take a picture of the service;
3. Record meter reading from dials or electronic display.

VI. METER TESTING AND VERIFICATION RECORDS

Meter records for all meters shall be retained for the life of the meter and shall indicate for each meter owned or used, the identifying number, name of manufacturer, type, capacity, date of purchase or other acquisition, installation date, its current location, and all results of meter tests.

- A. All required meter tests shall be properly referenced to the meter record. The record of each test made shall show:
 1. The identifying number and constants of the meter (the standard meter and other measuring devices used),
 2. The date and kind of test made,
 3. The reason for the test,
 4. The reading of the meter before the test,
 5. The error or percent accuracy at each tested load; and
 6. The test results and sufficient data to permit calculation verification.
- B. The names and addresses of all customers with the identifying number of related meter(s) shall be retained for at least three years.
- C. These records shall be retained:
 1. The daily record of the load and a monthly record of the output of its plants. For stations not having operators in continuous attendance, only monthly records are required.

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Meter Testing and Verification Program

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VI. METER TESTING AND VERIFICATION RECORDS (cont'd)

Each utility purchasing electrical energy shall provide to the Commission, upon request, information as to the monthly purchases, including demand where measured. For stations having operators in continuous attendance, regular readings of all station instruments and meters shall be made and recorded in such detail as to indicate the character of service being rendered. These records shall be retained for a minimum of three years.

2. Maps and records showing the location, voltage and conductor size of transmission and primary distribution facilities, substations and switching facilities. These records shall be retained for the life of the facility.

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