Beth Hemmersbach
Clerk-Treasurer

# Village of Cashton

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811 Main Street P.O. Box 188, Cashton, WI 54619-0188

RSC

05-GF-113
(970)

January 23, 2003

Mr. Scot Cullen, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

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2003 JAN 24 A 8:45
PUBLIC SERVICE COMMISSION

RE: In the Matter of Filing Reporting Requirements for Appropriate Inspection and Maintenance, PSC Rule 113.0607(6)

Dear Mr. Cullen:

Enclosed for filing are 3 copies of Cashton Municipal Light & Water's report to the commission, submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

John Hauser by (Beth Hemmersbach)
John Hauser
Director of Public Works

Enclosures

RECEIVED
2003
Electric Division

# TWO YEAR REPORT DOCUMENTING COMPLIANCE WITH THE PREVENTATIVE MAINTENANCE PLAN

## CASHTON MUNICIPAL LIGHT & WATER

**FILING DEADLINE**
**FEBRUARY 1, 2003**

January 23, 2003

John Hauser, Director of Public Works

709 Main St. P.O. Box 188

Cashton, WI 54619-0188

Phone: (608) 654-5610

Fax: (608) 654-7383

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Electric Division

This report format was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

## I Reporting Requirements: PSC 113.0607(6) states;

Each utility shall provide a periodic report to the commission showing compliance with its Preventative Maintenance Plan. The report shall include a list of inspected circuits and facilities, the condition of facilities according to established rating criteria, schedules established and success at meeting the established schedules.

## II Inspection Schedule and Methods:

| SCHEDULE: | MONTHLY | ANNUAL | EVERY 5 YEARS |
|---|---|---|---|
| Transmission (≥69Kv) | | X | X |
| Substations | X | X | |
| Distribution (OH & UG) | | | X |

METHODS: Five criteria groups will be used to complete the inspection of all facilities.

1. IR – infrared thermography used to find poor electrical connections and/or oil flow problems in equipment.
2. RFI - Radio Frequency Interference, a byproduct of loose hardware and connections, is checked using an AM radio receiver.
3. SI – structural integrity of all supporting hardware including poles, crossarms, insulators, structures, bases, foundations, buildings, etc.
4. Clearance – refers to proper spacing of conductors from other objects, trees and conductors.
5. EC – equipment condition on non-structural components such as circuit breakers, transformers, regulators, reclosers, relays, batteries, capacitors, etc.

Distribution facilities will be inspected by substation circuits on a 5 year cycle such that the entire system will be inspected every 5 years. Inspector instructions for inspecting all facilities and forms are included in the plan.

## III Condition Rating Criteria

This criterion, as listed below, establishes the condition of a facility and also determines the repair schedule to correct deficiencies .

0) Good condition
1) Good condition but aging
2) Non-critical maintenance required – normally repair within 12 months
3) Priority maintenance required – normally repair within 90 days

4) Urgent maintenance required – report immediately to the utility and repair normally within 1 week

## IV Corrective Action Schedule

The rating criteria as listed above determine the corrective action schedule.

## V Record Keeping

All inspection forms and records will be retained for a minimum of 10 years. The inspection form contains all of the required critical information i.e. inspection dates, condition rating, schedule for repair and date of repair completion.

## VI Reporting Requirements

A report and summary of this plan's progress will be submitted every two years with the first report due to the Commission by February 1, 2003. The report will consist of a cover letter documenting the percent of inspections achieved compared to the schedule and the percent of maintenance achieved within the scheduled time allowance.

## VII Inspected Circuits and Facilities

| Circuit # and description | Substation |
|---|---|
| | |
| | |
| | |
| | |
| | |

Base load and peaking generation, less than 50 megawatts per unit in size, is typically subject to pre-operational checks, in addition to checks and maintenance during and after periods of operation. Emergency generation is test run and maintained every month to confirm its operational readiness.

## VIII Scheduling Goals Established and Success of Meeting the Criteria:

"It was this utility's goal to complete all monthly substation inspections, annual transmission line inspections and to inspect 100% of the distribution system. In addition, we expected to complete all scheduled

maintenance resulting from the inspections within the prescribed time periods specified in the rating criteria.

All of the inspection goals were met or exceeded. 100% of the distribution system was inspected . Poles were replaced and repairs made as evidenced by attached sheets.

## IX Facility condition – rating criteria:

"During the past two years, 100% of the distribution system was inspected and all substation inspections were completed on time. Of the items found requiring maintenance, all were repaired before they were responsible for an outage to customers. Storm related outages have been minimal and there were no equipment failures affecting customers. A new generator was installed in 2002. Most of the system is in good condition."

Bank for D P C.

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 12-4-02

| Time: | Start Meter Reading | KWH x/100 | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 3:00 | 7210 | | 0 | | DJ |
| 3:30 | 7214 | 4 | 30.7 | 30.7 | DJ |
| 3:45 | 7232 | 18 | 30.7 | — | DJ |
| 4:00 | 7272 | 40 | 71.6 | 30.9 | DJ |
| 4:15 | 7311 | 39 | 112.8 | 31.2 | DJ |
| 4:30 | 7344 | 33 | 118.3 | 5.5 | DJ |
| 4:45 | 7380 | 36 | 154.3 | 36.0 | DJ |
| 5:00 | 7415 | 35 | 195.7 | 41.4 | DJ |
| 5:15 | 7453 | 38 | 222.0 | 27.6 | DJ |
| 5:30 | 7487 | 34 | 237.2 | 15.2 | DJ |
| 5:45 | 7525 | 38 | 278.9 | 41.7 | DJ |
| 6:00 | 7570 | 45 | 320.6 | 41.7 | DJ |
| 6:15 | 7597 | 27 | 331.6 | 11.0 | DJ |
| 6:30 | 7634 | 37 | 362.5 | 30.9 | RS |
| 6:45 | 7670 | 36 | 404.4 | 41.9 | RS |
| 7:00 | 7707 | 37 | 441.7 | 37.3 | RS |
| 7:15 | 7744 | 37 | 455.3 | 13.6 | RS |
| 7:30 | 7779 | 35 | 490.0 | 34.7 | RS |
| 7:45 | 7820 | 41 | 533.1 | 43.1 | RS |
| 8:00 | 7857 | 37 | 557.5 | 24.4 | RS |
| 8:15 | 7896 | 39 | 576.2 | 18.7 | RS |
| 8:30 | 7932 | 36 | 619.4 | 43.2 | RS |
| 8:45 | 7970 | 38 | 662.5 | 43.1 | RS |
| 9:00 | 8004 | 34 | 670.0 | 8.5 | RS |
| 9:15 | 8018 | 14 | 698.9 | 28.9 | RS |
| | | 80800 | 747.82 | | |

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Run for D.P.C.

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 12-3-02

| Time: | Start Meter Reading | KWH x 100 | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 4:00 | 6367 | | 0000 | | DH |
| 4:15 | 6378 | 11 | 30.6 | 30.6 | DH |
| 4:30 | 6399 | 21 | 30.6 | — | DH |
| 4:45 | 6426 | 27 | 66.1 | 35.5 | DH ~~full load~~ |
| 5:00 | 6467 | 38 | 97.3 | 31.2 | DH full load |
| 5:15 | 6495 | 31 | 107.8 | 10.5 | DH |
| 5:30 | 6532 | 37 | 149.6 | 41.8 | DH |
| 5:45 | 6567 | 35 | 188.0 | 38.4 | DH |
| 6:00 | 6602 | 35 | 196.0 | 8.0 | DH |
| 6:15 | 6639 | 37 | 233.3 | 37.3 | DH |
| 6:30 | 6677 | 38 | 275.7 | 42.4 | DH |
| 6:45 | 6713 | 36 | 300.0 | 24.3 | DH |
| 7:00 | 6748 | 35 | 317.0 | 17.0 | DH |
| 7:15 | 6785 | 37 | 358.7 | 41.7 | DH |
| 7:30 | 6826 | 41 | 401.7 | 43.0 | DH |
| 7:45 | 6864 | 38 | 420.0 | 18.3 | DH |
| 8:00 | 6900 | 36 | 444.8 | 24.8 | RS |
| 8:15 | 6939 | 39 | 487.9 | 43.1 | RS |
| 8:30 | 6975 | 36 | 527.7 | 39.8 | RS |
| 8:45 | 7015 | 40 | 544.0 | 16.3 | RS |
| 9:00 | 7053 | 38 | 574.3 | 30.3 | RS |
| 9:15 | 7088 | 35 | 616.4 | 42.1 | RS |
| 9:30 | 7124 | 36 | 643.4 | 27.0 | RS |
| 9:45 | 7159 | 35 | 657.9 | 14.5 | RS |
| 10:00 | 7190 | 31 | 697.8 | 39.9 | RS |
| 10:15 | 7210 | 20 | 697.8 | 0 | RS |
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# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 8-6-02

| Time: | Start Meter Reading | KWH x 100 | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 7:30 | 5730 | START | 5245.4 | | DF |
| 8:30 | 5820 | 90 | 5315.8 | 70.4 | DF |
| 9:30 | 5941 | 121 | 5423.3 | 107.5 | DF |
| 10:30 | 6050 | 109 | 5519.8 | 96.5 | RS |
| 11:30 | 6172 | 122 | 5614.1 | 94.3 | RS |
| 12:30 | 6294 | 122 | 5710.4 | 96.3 ← 96.3 | RS |
| 12:50 | 6327 | 33 | 5746.8 | 36.4 | |
| | | | | | |
| | 59700 | fuel used 501.4 gal | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | Gen for Vernon Ele Because of | | | | |
| | Leon Sub Station shut down | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| 10-18 | 6327 | Run for Reg | | check | JH |
| 8:30 | 6355 | | 45.1 | | |
| | | | | | |
| 11-5 | 6355 | | 00000 | | JH |
| 12:45 | 6367 | 12.0 | | | |

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# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 7-17-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 3:00 | 0004702 | Start | 4401.3 | | RS |
| 4:00 | 4742 | 40 | 4441.3 | 40.0 | RS |
| 5:00 | 4910 | 168 | 4575.7 | 134.4 | |
| 6:00 | 5084 | 174 | 4711.3 | 135.6 | RS |
| 7:00 | 5245 | 161 | 4841.9 | 130.6 | RS |
| 8:00 | 5409 | 164 | 4974.9 | 133.0 | RS |
| 9:00 | 5568 | 159 | 5099.3 | 124.4 | RS |
| 10:10 | 5728 | 160 | 5245.4 | 146.1 | RS |

# 6

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 7-2-02

| | Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|---|
| | 3:00 | 3644 | Start | 3516.1 | | |
| 87° | 4:00 | 3705 | 61 | 3586.8 | 70.7 | |
| 88° | 5:00 | 3874 | 169 | 3723.1 | 136.3 | |
| 88° | 6:00 | 4046 | 172 | 3861.6 | 138.5 | |
| 86° | 7:00 | 4204 | 158 | 3999.0 | 137.4 | |
| 85° | 8:00 | 4370 | 166 | 4131.3 | 132.3 | |
| 84° | 9:00 | 4535 | 165 | 4261.6 | 130.3 | |
| 83° | 10:10 | 4702 | 167 | 4401.3 | 139.7 | |

#6

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 7-1-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 3:30 | 2587 | Start | 2683.9 | | |
| 4:00 | 2671 | 84 | 2759.0 | 75.1 | |
| 5:00 | 2807 | 136 | 2856.0 | 97 | |
| 6:00 | 2967 | 160 | 2988.0 | 132 | |
| 7:00 | 3134 | 167 | 3128.0 | 140 | |
| 8:00 | 3310 | 176 | 3259.2 | 131.2 | |
| 9:00 | 3477 | 167 | 3388.5 | 129.3 | |
| 10:10 | 3644 | 167 | 3516.1 | 127.6 | |

#5

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 7-1-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 3:30 | 5892 | start | 071320 | | |
| 4:00 | 5897 | 5 | 071320 | | |
| 5:00 | 5903 | 6 | 071320 14612 | | |
| 6:00 | 5909 | 6 | 071320 / 14617 | 5 natural gas | |

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 5-11-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 10:00 | 2568 | | 0000 | | |
| 11:00 | 2584 | 160 | 30.2 | 30.2 | |

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 4-30-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 8:00 | 2157 | | 0000.0 | | [illegible] |
| 9:00 | 2184 | 270 | 304 | 30.4 | [illegible] |
| 10:00 | 2347 | 1630 | 148.1 | 144.7 | [illegible] |
| 11:01 | 2527 | 1800 | 284.2 | ~~[illegible]~~ | |
| 11:15 | 2568 | 410 | 329.7 | ~~[illegible]~~ 136.1 | |
| | 4110 | | | | |
| | | | | | |
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| | | | | | |
| | 35919 | | | | |
| | 31735 | | | | |
| | | | | | |
| | 4184 | | | | |

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15-40 Valve ~~Vacation~~

#6

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

Date: 4-25-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 7:00 | 1219 | | 1483.6 | | DL |
| 8:00 | 1308 | 890 | 1570.0 | 86.4 | DL |
| 9:00 | 1421 | 1130 | 1649.1 | 79.1 | DL |
| 10:00 | 1535 | 1140 | 1762.0 | 112.9 | DL |
| 11:00 | 1658 | 1230 | 1845.9 | 83.9 | DL |
| 12:00 | 1772 | 1140 | 1952.3 | 93.9 | DL |
| 13:00 | 1878 | 1060 | 2046.2 | 100.3 | DL |
| 14:00 | 1976 | 980 | 2146.5 | 95.1 | DL |
| 15:00 | 2085 | 1090 | 2241.6 | 95.4 | DL |
| 15:30 | 2136 | 510 | 2276.4 | 34.8 | DL |
| | 9170 | 9170 | | 792.8 | DL |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | 31556 | | 792.8 gal | @ 1.16 = | 919.65 |
| | ~~31556~~ | | | | |
| | 159 | | 9170 KWH | = .1003 | & R-KWH |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | 31556 | | | | |
| | 22252 | | | | |
| | 9304 | | | | |
| 4-29-02 | | | | | |
| | 21 | | | | |
| | 2136 | | 2276.4 | | |
| | 2157 | 210 | 2310.2 | 33.8 | DK |
| | ~~81~~ | | | | |

# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

#6

Date: 4-17-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 12:00 | 12723 | | 670.6 | | |
| 13:00 | 13473 | 750 | 734.4 | 64.2 | DZ |
| 14:00 | 14363 | 890 | 793.4 | 59.0 | DZ |
| 15 | ~~12260~~ | 897 | 860.5 | 67.1 | DZ |
| | 15260 | 2537 | | 190.3 x 1.16 = 220.75 | |
| 4-18-02 | 22252 | 8992 | Fuel Cost .087 Per Kw | | |
| | | | | | |
| 4-18-02 | X10 | | | | |
| | Difference Kw meter | | | | |
| 7:30 | 538 | | 860.5 | | |
| 8:30 | 628 | 900 | 958.0 | 97.5 | DZ |
| 9:30 | 714 | 860 | 1025.2 | 67.2 | DZ |
| 10:30 | 817 | 1030 | 1144.3 | 119.1 | DZ |
| 11:30 | 917 | 1000 | 1214.7 | 70.4 | DZ |
| 12:30 | 1016 | 990 | 1306.9 | 92.2 | DZ |
| 13:30 | 1117 | 1010 | 1377.5 | 70.6 | DZ |
| 14:30 | 1219 | 1020 | 1483.6 | 106.1 | |
| | | 6810 | | | |
| | ~~6810~~ | | | 623.1 x 1.16 = 722.85 | |
| | 6810 | | | | .106 Per Kw |
| | .0894 gal Per Kw | | | | ~~.087 Per Kw~~ |

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# VILLAGE OF CASHTON
# HOURLY GENERATING LOG

#6

Date: 4-17-02

| Time: | Start Meter Reading | KWH | Fuel Meter | Fuel Used | Operator |
|---|---|---|---|---|---|
| 12:00 | 12723 | | 670.6 | | |
| 13:00 | 13473 | 750 | 734.4 | 64.2 | DL |
| 14:00 | 14363 | 890 | 793.4 | 59.0 | DL |
| 15:00 | 15260 | 897 | 860.5 | 67.1 | DL |
| | | 2537 | | 190.3 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 4-18-02 | | | | | |
| | Different Kwhr metr | | | | |
| 7:30 | 538 | | 860.5 | | |
| 8:30 | 628 | 900 | 958.0 | 97.5 | DL |
| 9:30 | 714 | 860 | 1025.2 | 67.2 | DL |
| 10:30 | 817 | 1030 | 1144.3 | 119.1 | DL |
| 11:30 | 917 | 1000 | 1214.7 | 70.4 | DL |
| 12:30 | 1016 | 990 | 1306.9 | 92.2 | DL |
| 13:30 | 1117 | 1010 | 1377.5 | 70.6 | DL |
| 14:30 | 1219 | 1020 | 1483.6 | 106.1 | DL |
| | | | | | |
| | | 6810 | | 623.1 | |
| | | | | | |
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| 608 | 787-1266 | | | | |

# OVERHEAD DISTRIBUTION INSPECTION FORM

Date 4-8-2 Inspected by [illegible] Sub _____ Ckt A

| MAP AREA | STRUCTURE | | | | | | | | | | | | | EQUIPMENT | | | | | | CLEARANCE | | | | | COMMENTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feeder A | | | | | | | | | | | | | | | | | | | | | | | | | Rating Criteria<br>0) Good Condition<br>1) Good Condition but aging<br>2) Non-critical Maintenance Required<br>3) Priority Maintenance Required<br>4) Urgent Maintenace Required | | |
| LOCATION | Pole Condition/Leaning | Crossarm Condition | Insulators, DE, Pin | Soil Conditions | Pole Steps | Grounds Intact, Molding | Down Guys and Markers | Guy Bond, Insulator | Signs, Lock, Warning | Customer Equipment | Conductor and Ties | U'Guard/Conduit Cond | RFI Check | Transformer | Switches | Cutouts | Arresters | Terminators | Street Light | Tree Trimming | Ground Line Clearances | Building Clearances | Streets, Roads, Alleys | Communication Clearance | | Date Item Corrected | Corrected By |
| A-4 | | | | | | | | | | | | | | | | | | | | 2 | | | | | Trim Tree | 4-12 | B.H. |
| A-2 | | | | | | | | | | | | | | | | | | | | 2 | | | | | Trim Tree | 4-12 | B.H. |
| A-11 | | | | | | | | | | | | | | | | | | | | 3 | | | | | Trim Tree | 4-12 | B.H. |
| A-30 | 3 | 3 | | | | | | 2 | | | | | | | | | | | | | | | | | Replace | 5-31 | |
| A-34 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | Replace | 5-31 | |
| A-40 | | | | | | | | | | | | | | | | | | | | 2 | | | | | Trim Tree | 5-31 | B.H. |

# OVERHEAD DISTRIBUTION INSPECTION FORM

Date 6-28 Inspected by [illegible] Sub _____ Ckt D

| MAP AREA | STRUCTURE | | | | | | | | | | | | | EQUIPMENT | | | | | | CLEARANCE | | | | | COMMENTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feeder D | Pole Condition/Leaning | Crossarm Condition | Insulators, DE, Pin | Soil Conditions | Pole Steps | Grounds Intact, Molding | Down Guys and Markers | Guy Bond, Insulator | Signs, Loc#, Warning | Customer Equipment | Conductor and Ties | U/Guard/Conduit Cond | RFI Check | Transformer | Switches | Cutouts | Arresters | Terminators | Street Light | Tree Trimming | Ground Line Clearances | Building Clearances | Streets, Roads, Alleys | Communication Clearance | Rating Criteria<br>0) Good Condition<br>1) Good Condition but aging<br>2) Non-critical Maintenance Required<br>3) Priority Maintenance Required<br>4) Urgent Maintenace Required | Date Item Corrected | Corrected By |
| LOCATION | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# OVERHEAD DISTRIBUTION INSPECTION FORM

Date 7-16 Inspected by [illegible] Sub Ckt

| MAP AREA | STRUCTURE | | | | | | | | | | | | EQUIPMENT | | | | | | | CLEARANCE | | | | COMMENTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOCATION | Pole Condition/Leaning | Crossarm Condition | Insulators, DE Pin | Soil Conditions | Pole Steps | Grounds Intact, Molding | Down Guys and Markers | Guy Bond, Insulator | Signs, Loc#, Warning | Customer Equipment | Conductor and Ties | U/Guard/Conduit Good | RF Check | Transformer | Switches | Cutouts | Arresters | Terminators | Street Light | Tree Trimming | Ground Line Clearances | Building Clearances | Streets, Roads, Alleys | Communication Clearances | Rating Criteria<br>0) Good Condition<br>1) Good Condition but aging<br>2) Non-critical Maintenance Required<br>3) Priority Maintenance Required<br>4) Urgent Maintenace Required | Date Item Corrected | Corrected By |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

# OVERHEAD DISTRIBUTION INSPECTION FORM

Date 4-15-2 Inspected by [illegible] Sub _____ Ckt B

| MAP AREA | STRUCTURE | | | | | | | | | | | | | EQUIPMENT | | | | | | CLEARANCE | | | | | COMMENTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F-1: B | | | | | | | | | | | | | | | | | | | | | | | | | Rating Criteria<br>0) Good Condition<br>1) Good Condition but aging<br>2) Non-critical Maintenance Required<br>3) Priority Maintenance Required<br>4) Urgent Maintenace Required | | |
| LOCATION | Pole Condition/Leaning | Crossarm Condition | Insulators, DE, Pin | Soil Conditions | Pole Steps | Grounds Intact, Molding | Down Guys and Markers | Guy Bond, Insulator | Signs, Loc#, Warning | Customer Equipment | Conductor and Ties | U'Guard/Conduit Cond | RFI Check | Transformer | Switches | Cutouts | Arresters | Terminators | Street Light | Tree Trimming | Ground Line Clearances | Building Clearances | Streets, Rbads, Alleys | Communication Clearance | | Date Item Corrected | Corrected By |
| B-2 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | Replace all | 5-28 | [illegible] |
| B-3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | Replace all | 5-29 | [illegible] |
| B-4 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | Replace all | 5-29 | [illegible] |
| B-5 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | Replace | 5-30 | [illegible] |
| B-12 | | | | | | | | | | | | | | | | | | | | 2 | | | | | Trim Tree | 4-16 | DF |
| B-23 | | | | | | | | | | | | | | | | | | | | 2 | | | | | Trim Tree | 4-16 | DF |
| B-40 | | | | | | | | | | | | | | | | | | | | 2 | | | | | Trim Tree | 4-16 | DF |

# ANNUAL ~~TRANSMISSION~~ INSPECTION FORM

Date 8-22 Inspected by [illegible] Sub _____ Ckt _____

Line from Sub R.E.A to our Sub

| MAP AREA | STRUCTURE | | | | | | | | | | | | EQUIPMENT | | CLEARANCE | | | | | COMMENTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOCATION | Pole Condition/Leaning | Crossarm Condition | Insulators, DE, Pin | Soil Conditions | Pole Steps | Grounds Intact, Molding | Down Guys and Markers | Guy Bond, Insulator | Signs, Loc#, Warning | Customer Equipment | Conductor and Ties | RFI Check | Switches | Arresters | Tree Trimming | Ground Line Clearances | Building Clearances | Streets, Roads, Alleys | Communication Clearance | Rating Criteria<br>0) Good Condition<br>1) Good Condition but aging<br>2) Non-critical Maintenance Required 3) Priority Maintenance Required<br>4) Urgent Maintenace Required | Date Item Corrected | Corrected By |
| F-3 | | | | | | | | | | | | | | | 3 | | | | | trim tree | 8-24 | [illegible] |

UNDERGROUND DISTRIBUTION INSPECTION FORM Date 2-6-02 Inspected by J H Sub _____ Circuit A

| MAP AREA | STRUCTURE | | | | | | | | EQUIPMENT | | | | IR / RFI Scan | | COMMENTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feeder A<br>EQUIPMENT LOCATION | Enclosure Condition | Level / Leaning | Security | Grade / Accessibility | Numbering | Voids / Gaps | Signage | Pad / Vault Condition | **Transformers**, Leaks, Bushings, Grounding,Bonds,Elbows, Arrestors, Cable cond, Connections | **Primary Pedestals**, Elbows, Grounding, Bonds,Junction cond. | **Secondary Pedestals**, Connections | **Switches**, Signage, Insulators, Security, Linkage, Ground, Bonds | **Main Three Phase Feeders**, Risers & Switchgear | **Priority URD Transformers**, Bushings and Tank heating | Rating Criteria<br>----------<br>0) Good Condition<br>1) Good Condition but aging<br>2) Non-critical Maintenance Required<br>3) Priority Maintenance Required<br>4) Urgent Maintenace Required | Date Item Corrected | Corrected By |
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UNDERGROUND DISTRIBUTION INSPECTION FORM Date 2-6-2 Inspected by J 27 Sub _____ Circuit B

| MAP AREA | STRUCTURE | | | | | | | | EQUIPMENT | | | | IR / RFI Scan | | COMMENTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feeder B<br>EQUIPMENT LOCATION | Enclosure Condition | Level / Leaning | Security | Grade / Accessibility | Numbering | Voids / Gaps | Signage | Pad / Vault Condition | **Transformers**, Leaks, Bushings, Grounding,Bonds,Elbows, Arrestors, Cable cond, Connections | **Primary Pedestals**, Elbows, Grounding, Bonds,Junction cond. | **Secondary Pedestals**, Connections | **Switches**, Signage, Insulators, Security, Linkage, Ground, Bonds | **Main Three Phase Feeders**, Risers & Switchgear | **Priority URD Transformers**, Bushings and Tank heating | Rating Criteria<br>----------<br>0) Good Condition<br>1) Good Condition but aging<br>2) Non-critical Maintenance Required<br>3) Priority Maintenance Required<br>4) Urgent Maintenace Required | Date Item Corrected | Corrected By |
| | | | | | | | | | | | | | | | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: 1-2-03

SUBSTATION:

Outside Temp 20

| TRANSFORMER MAIN TANK | | | RATING: 0 1 2 3 4 (Circle One) | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | | | |
| inspected | X | | | COMMENTS | DATE CORRECTED | CORRECTED BY |
| Oil in Bushings | | | | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | |
| Sample Valves | ✓ | ✓ | ✓ | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | | | | | | |
| Tank Pressure | -1 | -1 | -1 | | | |
| Tank Oil Level | 25 | 24 | 25 | | | |
| Temperature Gauge | 15 | 16 | 17 | | | |
| Cooling Fans | | | | | | |
| Bushing Temp | | | | | | |
| High In | 24 | 24 | 24 | | | |
| High In | 24 | 24 | 23 | | | |
| Low Out | 24 | 25 | 24 | | | |
| Low Out | 24 | 25 | 24 | | | |

| TRANSFORMER LTC or VOLTAGE REGULATORS | | | RATING: 0 1 2 3 4 (Circle One) | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ✓ | ✓ | ✓ | | | |
| Drag Hand Positions Low | -4 | 0 | -1 | | | |
| Cabinet Light High | 0 | 5 | 4 | | | |
| Operation Count | 8304 | 7047 | 48452 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 30 | 45 | 26 | | | |
| Low Out | 29 | 27 | 24 | | | |
| Low Out | 23 | 22 | 22 | | | |
| | | | | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: 12-2-02

SUBSTATION:

Outside Temp 19

**TRANSFORMER MAIN TANK** RATING: 0 1 2 3 4 (Circle One)

| inspected | X | 1 | 2 | 3 | COMMENTS | DATE CORRECTED | CORRECTED BY |
|---|---|---|---|---|---|---|---|
| Oil in Bushings | | | | | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | | |
| Oil Leaks | | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | | |
| Sample Valves | ✓ | ✓ | ✓ | | | | |
| Radiators | ✓ | ✓ | ✓ | | | | |
| Radiator Bank | | | | | | | |
| Tank Pressure | -1 | -1 | -1 | | | | |
| Tank Oil Level | 25 | 25 | 25 | | | | |
| Temperature Gauge | 15 | 17 | 18 | | | | |
| Cooling Fans | | | | | | | |
| Bushing Temp | | | | | | | |
| High IN | 24 | 24 | 23 | | | | |
| High In | 24 | 24 | 23 | | | | |
| Low Out | 24 | 25 | 24 | | | | |
| Low Out | 24 | 25 | 23 | | | | |

**TRANSFORMER LTC or VOLTAGE REGULATORS** RATING: 0 1 2 3 4 (Circle One)

| | | | | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ✓ | ✓ | ✓ | | | |
| Drag Hand Positions Low | -3 | 0 | 0 | | | |
| Cabinet Light High | 0 | 5 | 4 | | | |
| Operation Count | 8044 | 6826 | 47848 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High IN | 27 | 38 | 24 | | | |
| Low Out | 26 | 22 | 22 | | | |
| Low Out | 21 | 21 | 20 | | | |
| | | | | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: 11-1-02

SUBSTATION:

Outside Temp 18°

**TRANSFORMER MAIN TANK** RATING: 0 1 2 3 4 (Circle One)

| | 1 | 2 | 3 | COMMENTS | DATE CORRECTED | CORRECTED BY |
|---|---|---|---|---|---|---|
| inspected | X | | | | | |
| Oil in Bushings | | | | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | |
| Sample Valves | ✓ | ✓ | ✓ | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | ✓ | ✓ | ✓ | | | |
| Tank Pressure | -1 | -1 | -1.5 | | | |
| Tank Oil Level | 25° | 25° | 25° | | | |
| Temperature Gauge | 15° | 15° | 15° | | | |
| Cooling Fans | | | | | | |
| Bushing Temp | | | | | | |
| High In | 20 | 17 | 14 | | | |
| High In | 17 | 14 | 15 | | | |
| Low Out | 15 | 18 | 17 | | | |
| Low Out | 15 | 18 | 11 | | | |

**TRANSFORMER LTC or VOLTAGE REGULATORS** RATING: 0 1 2 3 4 (Circle One)

| | | | | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | | | | | | |
| Drag Hand Positions Low | -3 | 1 | 0 | | | |
| Cabinet Light High | 0 | 5 | 4 | | | |
| Operation Count | 7790 | 6645 | 47338 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 23 | 30 | 12 | | | |
| Low Out | 20 | 3 | -2 | | | |
| Low Out | 19 | 17 | 9 | | | |
| | | | | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: 10-1-02

SUBSTATION:

Outside Temp 65°

**TRANSFORMER MAIN TANK** RATING: 0 1 2 3 4 (Circle One)

| inspected | X | 1 | 2 | 3 | COMMENTS | DATE CORRECTED | CORRECTED BY |
|---|---|---|---|---|---|---|---|
| Oil in Bushings | | | | | | | |
| Bushing and Arrestor | | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | | |
| Main Tank | | ✓ | ✓ | ✓ | | | |
| Sample Valves | | ✓ | ✓ | ✓ | | | |
| Radiators | | ✓ | ✓ | ✓ | | | |
| Radiator Bank | | ✓ | ✓ | ✓ | | | |
| Tank Pressure | | 0 | 0 | 0 | | | |
| Tank Oil Level | | 26° | 25° | 25° | | | |
| Temperature Gauge | | 34 | 35 | 35 | | | |
| Cooling Fans | | | | | | | |
| Bushing Temp | | | | | | | |
| High In | | 55 | 59 | 57 | | | |
| High In | | 55 | 58 | 58 | | | |
| Low Out | | 58 | 59 | 62 | | | |
| Low Out | | 59 | 60 | 56 | | | |

**TRANSFORMER LTC or VOLTAGE REGULATORS** RATING: 0 1 2 3 4 (Circle One)

| | 1 | 2 | 3 | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ✓ | ✓ | ✓ | | | |
| Drag Hand Positions Low | -3 | 1 | -1 | | | |
| Cabinet Light High | 0 | 7 | 4 | | | |
| Operation Count | 7516 | 6441 | 46801 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 72 | 79 | 57 | | | |
| Low Out | 64 | 50 | 42 | | | |
| Low Out | 61 | 61 | 52 | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: 9-3-02

SUBSTATION: Outside Temp 64

| TRANSFORMER MAIN TANK | 1 | 2 | 3 | RATING: 0 1 2 3 4 (Circle One) | | |
|---|---|---|---|---|---|---|
| inspected | X | | | COMMENTS | DATE CORRECTED | CORRECTED BY |
| Oil in Bushings | | | | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | |
| Sample Valves | ✓ | ✓ | ✓ | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | ✓ | ✓ | ✓ | | | |
| Tank Pressure | 0 | 0 | 0 | | | |
| Tank Oil Level | 26 | 25 | 25 | | | |
| Temperature Gauge | 35 | 34 | 35 | | | |
| Cooling Fans | | | | | | |
| Bushing Temp | | | | | | |
| High In | 53 | 53 | 50 | | | |
| High In | 50 | 52 | 52 | | | |
| Low out | 50 | 51 | 52 | | | |
| Low out | 53 | 55 | 50 | | | |

| TRANSFORMER LTC or VOLTAGE REGULATORS | 1 | 2 | 3 | RATING: 0 1 2 3 4 (Circle One) | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ok | ok | ok | | | |
| Drag Hand Positions Low | -3 | 1 | -1 | | | |
| Cabinet Light High | 0 | 8 | 4 | | | |
| Operation Count | 7216 | 6238 | 46227 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 67 | 70 | 50 | | | |
| Low Out | 61 | 35 | 33 | | | |
| Low Out | 57 | 56 | 46 | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Plock

DATE: 8-1-02

SUBSTATION:

| TRANSFORMER MAIN TANK | 1 | 2 | 3 | RATING: 0 1 2 3 4 (Circle One) | | |
|---|---|---|---|---|---|---|
| inspected | X | | | COMMENTS | DATE CORRECTED | CORRECTED BY |
| Oil in Bushings | ✓ | ✓ | ✓ | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | ✓ | ✓ | ✓ | | | |
| Main Tank | | | | | | |
| Sample Valves | ✓ | ✓ | ✓ | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | ✓ | ✓ | ✓ | | | |
| Tank Pressure | 0 | 0 | 0 | | | |
| Tank Oil Level | 26 | 25 | 26 | | | |
| Temperature Gauge | 39 | 40 | 40 | | | |
| Cooling Fans | | | | | | |
| Bushing Temp | | | | | | |
| High In | 74 | 73 | 73 | | | |
| High In | 74 | 73 | 74 | | | |
| Low Out | 74 | 75 | 76 | | | |
| Low Out | 74 | 76 | 72 | | | |

| TRANSFORMER LTC or VOLTAGE REGULATORS | 1 | 2 | 3 | RATING: 0 1 2 3 4 (Circle One) | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ok | ok | ok | | | |
| Drag Hand Positions Low | -5 | 1 | -1 | | | |
| Cabinet Light High | 2 | 8 | 4 | | | |
| Operation Count | 6912 | 5977 | 45 | 6621 | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 82 | 92 | 75 | | | |
| Low out | 80 | 74 | 81 | | | |
| Low Out | 75 | 76 | 77 | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: 7-1-02

SUBSTATION:

outside Temp. 84

**TRANSFORMER MAIN TANK** RATING: 0 1 2 3 4 (Circle One)

| | 1 | 2 | 3 | COMMENTS | DATE CORRECTED | CORRECTED BY |
|---|---|---|---|---|---|---|
| inspected | X | | | | | |
| Oil in Bushings | | | | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | |
| Sample Valves | ✓ | ✓ | ✓ | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | ✓ | ✓ | ✓ | | | |
| Tank Pressure | 0 | 0 | 0 | | | |
| Tank Oil Level | 26 | 25 | 26 | | | |
| Temperature Gauge | 40 | 40 | 40 | | | |
| Cooling Fans | | | | | | |
| Bushing Temp | | | | | | |
| High In | 77 | 78 | 79 | | | |
| High In | 77 | 78 | 81 | | | |
| Low out | 79 | 80 | 83 | | | |
| Low out | 79 | 80 | 78 | | | |

**TRANSFORMER LTC or VOLTAGE REGULATORS** RATING: 0 1 2 3 4 (Circle One)

| | | | | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ✓ | ✓ | ✓ | | | |
| Drag Hand Positions Low | -3 | 1 | -1 | | | |
| Cabinet Light High | 1 | 8 | 4 | | | |
| Operation Count | 6648 | 5717 | 49085 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 93 | 110 | 82 | | | |
| Low out | 90 | 74 | 93 | | | |
| Low Out | 84 | 85 | 85 | | | |
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# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: 5-31-02

SUBSTATION:

Outside Temp 70

| TRANSFORMER MAIN TANK | 1 | 2 | 3 | RATING: 0 1 2 3 4 (Circle One) | | |
|---|---|---|---|---|---|---|
| inspected | X | | | COMMENTS | DATE CORRECTED | CORRECTED BY |
| Oil in Bushings | | | | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | |
| Sample Valves | | | | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | ✓ | ✓ | ✓ | | | |
| Tank Pressure | 0 | 0 | 0 | | | |
| Tank Oil Level | 26° | 25 | 26° | | | |
| Temperature Gauge | 38 | 38 | 38 | | | |
| Cooling Fans | | | | | | |
| Bushing Temp | | | | | | |
| High in | 64 | 65 | 61 | | | |
| High in | 61 | 63 | 64 | | | |
| Low out | 62 | 65 | 60 | | | |
| Low out | 65 | 67 | 65 | | | |

| TRANSFORMER LTC or VOLTAGE REGULATORS | 1 | 2 | 3 | RATING: 0 1 2 3 4 (Circle One) | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | | | | | | |
| Drag Hand Positions Low | -2 | 0 | 0 | | | |
| Cabinet Light High | 1 | 5 | 4 | | | |
| Operation Count | 6380 | 5511 | 4452 | 17 | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High in | 77 | 90 | 65 | | | |
| Low out | 75 | 60 | 64 | | | |
| Low out | 66 | 66 | 65 | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: May 1, 02

SUBSTATION:

Outside Temp 42

**TRANSFORMER MAIN TANK** RATING: 0 1 2 3 4 (Circle One)

| inspected | 1 X | 2 | 3 | COMMENTS | DATE CORRECTED | CORRECTED BY |
|---|---|---|---|---|---|---|
| Oil in Bushings | | | | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | |
| Sample Valves | | | | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | ✓ | ✓ | ✓ | | | |
| Tank Pressure | -.25 | 0 | -.25 | | | |
| Tank Oil Level | 26° | 25° | 25° | | | |
| Temperature Gauge | 25 | 25 | 25 | | | |
| Cooling Fans | | | | | | |
| Bushing Temp | | | | | | |
| High In | 41 | 43 | 43 | | | |
| High In | 41 | 42 | 42 | | | |
| Low out | 45 | 45 | 40 | | | |
| Low Out | 45 | 45 | 42 | | | |

**TRANSFORMER LTC or VOLTAGE REGULATORS** RATING: 0 1 2 3 4 (Circle One)

| | 1 | 2 | 3 | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | OK | OK | OK | | | |
| Drag Hand Positions Low | -4 | 0 | -1 | | | |
| Cabinet Light High | 1 | 5 | 5 | | | |
| Operation Count | 6136 | 5331 | 4403 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 50 | 61 | 49 | | | |
| Low Out | 49 | 42 | 45 | | | |
| Low Out | 44 | 44 | 43 | | | |
| | | | | | | |
| Fence + Locks | ✓ | ✓ | ✓ | | | |
| | | | | | | |

# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: April 1 2002

SUBSTATION:

Outside Temp. 30

**TRANSFORMER MAIN TANK** **RATING: 0 1 2 3 4** **(Circle One)**

| inspected | 1 X | 2 | 3 | COMMENTS | DATE CORRECTED | CORRECTED BY |
|---|---|---|---|---|---|---|
| Oil in Bushings | ✓ | ✓ | ✓ | | | |
| Bushing and Arrestor | ✓ | ✓ | ✓ | | | |
| Oil Leaks | | | | | | |
| Main Tank | ✓ | ✓ | ✓ | | | |
| Sample Valves | ✓ | ✓ | ✓ | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | ✓ | ✓ | ✓ | | | |
| Tank Pressure | -1 | -3/4 | -1 | | | |
| Tank Oil Level | 25° | 20° | 22° | | | |
| Temperature Gauge | 15 | 18 | 18 | | | |
| ~~Cooling Fans~~ Hggh | 29 | 30 | 29 | | | |
| Bushing Temp | | | | | | |
| High IN | 37 | 38 | 38 | | | |
| High IN | 37 | 38 | 38 | | | |
| Low Out | 40 | 40 | 39 | | | |
| Low Out | 38 | 38 | 35 | | | |

**TRANSFORMER LTC or VOLTAGE REGULATORS** **RATING: 0 1 2 3 4** **(Circle One)**

| | 1 | 2 | 3 | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ok | ok | ok | | | |
| Drag Hand Positions Low | -4 | -1 | -1 | | | |
| ~~Cabinet Light~~ High | 0 | 5 | 4 | | | |
| Operation Count | 5866 | 5119 | 4356 | 8 | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High IN | 45 | 59 | 40 | | | |
| Low Out | 41 | 36 | 37 | | | |
| Low Out | 36 | 35 | 36 | | | |
| | | | | | | |
| Fence + Locks | — | — | — | — | — | |
| | | | | | | |

# MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Duke Flock

DATE: March 1 2002

SUBSTATION:

out side temp 13

**TRANSFORMER MAIN TANK** RATING: 0 1 2 3 4 (Circle One)

| inspected | 1 X | 2 | 3 | COMMENTS | DATE CORRECTED | CORRECTED BY |
|---|---|---|---|---|---|---|
| Oil in Bushings | | | | | | |
| Bushing and Arrestor | X | X | X | | | |
| Oil Leaks | | | | | | |
| Main Tank | n | n | n | | | |
| Sample Valves | X | X | X | | | |
| Radiators | ✓ | ✓ | ✓ | | | |
| Radiator Bank | — | — | — | | | |
| Tank Pressure | -1 1/4 | -1 | -1 1/4 | | | |
| Tank Oil Level | 25° | 20° | 22° | | | |
| Temperature Gauge | 10 | 10 | 10 | | | |
| ~~Cooling Fans~~ High | 25 | 55 | 50 | | | |
| Bushing Temp. | | | | | | |
| High In | 5 | 4 | 6 | | | |
| High In | 5 | 6 | 5 | | | |
| Low out | 12 | 11 | 11 | | | |
| Low out | 12 | 12 | 6 | | | |

**TRANSFORMER LTC or VOLTAGE REGULATORS** RATING: 0 1 2 3 4 (Circle One)

| | 1 | 2 | 3 | | | |
|---|---|---|---|---|---|---|
| Tank Oil Level | ok | ok | ok | | | |
| Drag Hand Positions Low | -3 | 0 | -2 | | | |
| ~~Cabinet Light~~ High | 0 | 4 | 5 | | | |
| Operation Count | 5556 | 4922 | 042880 | | | |
| Tank Pressure | | | | | | |
| Cabinet Heater | | | | | | |
| Cabinet Contamination | | | | | | |
| Bushing Temp. | | | | | | |
| High In | 23 | 38 | 76 | | | |
| Low out | 12 | 15 | 20 | | | |
| Low out | 11 | 15 | 16 | | | |
| | | | | | | |
| Fence + Locks | — | — | — | | | |
| | | | | | | |