

Facility: BRW BRAIDWOOD GENERATING STATION

MASTER

Unit : 00 Project :

Work Order Package

W/O Type: PM Priority: C W/O Dspln: OP

Planner : BRWCJ CHOJNICKI J

00769127 01

W/O Title : CIRC WATER BLOWDOWN & MAKEUP VACUUM BREAKER ANNUAL INSPECTIO

W/O Task Title: OP PERFORM ANNUAL PM ON CW M/U AND B/D VACUUM RELIEF VALVES

Written To :

Task Dspln : OP

Due Date: 11/09/05

Date: 11/03/05

Late Date: 02/08/06



**Exelon.**

Work Order Task Written To

Facility : BRW

Division :

Equipment :

Work Item : OBWOS CW-A1

Equip. Tag :

UTC :

Catalog ID :

Client/Act :

Location :

PMRQ : 00098197 01 PM Cat Cd: PMNS

Unit : 00

Op Sys :

Area :

Sys/Cls: CW

Component:

Eqt. List:

Ops Review Req'd:

Alt:

Tbl/Brkdwn: (Past 12 mo)

Job Type : PM UCR: NJ

Signature/Authorization/Approval/Review:

Shift Authorization to start work :  
 Work Started :  
 Work Stopped :  
 Supv Review of Work Completion :  
 QC Review of work :  
 ANI Review of Code work :  
 Post Maintenance Test Complete :  
 Shift Approval for Completion :  
 QC Review of work package :  
 ANI Review of work package :

Name	Date	Time
	11/9/05	0749
	11-9-05	1015
	11-11-05	1402

NOV 15 2005

Work Order Task Instructions

PERFORM OBWOS CW-A1 **AND**  
SIGN OFF PMTS FOR WO #'S 820879 AND 757898.

D-54

Nuclear Information

RWP Required	: N	Contain Closure	:	Doc Pkg	:	A Mode
Contain Integrity	:	Q Group	:	QA Grade	:	
Train Status	:	NCR	:		:	
TS/SLC Related	:	Tech Spec Action	:		:	
Maintenance Rel.	:	LCO	:	Tech Spec Date	:	
Detection	:	Symptom	:	Failure/Date	:	
Discovery Status	:	Plant Effect	:	Sys Effect	:	
Ctrl Rm Comm Req'd	:	Safety Class	:	NS	:	

As Found / As Left Conditions

Surv Found Within Acceptance Criteria:

Yes

No

Surv Left Within Acceptance Criteria :

Yes

No

*Handwritten notes:*  
11-11-05  
11-11-05

Update Predefine (circle one of the following):

Complete/SAT - Complete/Portions UNSAT - Partial - Failed

DESCRIBE AS FOUND EQUIPMENT CONDITIONS (Circle One)

(A) Better than Expctd (C) As-Expctd (D) Worse than Expctd (F) Failed (N) N/A

Comments

OCW 124 AIR RELEASE VALVE LEAKAGE. IR'ed

ALLOW UPDATE

UNIT COMMON  
CIRCULATING WATER SYSTEM  
BLOWDOWN AND MAKEUP VACUUM BREAKER VALVE INSPECTION

A. STATEMENT OF APPLICABILITY

This procedure provides the steps necessary to visually inspect & manually cycle CW Blowdown and Makeup Vacuum Breaker/Butterfly Isolation Valves to increase reliability. This procedure to be performed per a predefined program during all modes of operation.

B. REFERENCES

1. Station Procedures:
  - a. BwOP CW-M2, CW System Valve Lineup.
  - b. BwOP CW-9, Circulating Water Makeup System Startup.
  - c. BwOP CW-10, Circulating Water Makeup Pump/System Shutdown.
  - d. BwOP CW-12, Circulating Water Blowdown System Fill, Startup, Operation, and Shutdown.
2. Station Drawing: M-44, Sheet 3A, CW Makeup System.
3. ODCM Radioactive Effluent Technical Standards (RETS):
  - a. 12.2.1.a.
  - b. 12.3.1.a.
4. CR A2000-04281, Blowdown Vacuum Breaker Failure Root Cause Report.

C. PREREQUISITES

- G.* Circulating Water Blowdown must be in operation to perform Blowdown Vacuum Breaker Valve portion of this surveillance.
- F.* Circulating Water Makeup must be in operation to perform Makeup Vacuum Breaker Valve portion of this surveillance.
- E.* A suitable operator extension bar/wrench is required to perform butterfly isolation valve actuations from outside the valve pit.
- D.* A suitable pry bar is required to remove valve pit manhole covers.
- C.* A ≈10 foot tape measure is required for taking valve pit water levels.
- B.* A radio should be carried along, if available.
- A.* An electronic navigation device, (GPS) may be required.

D. PRECAUTIONS

- A.* INFORM Shift Manager before starting, and after completing surveillance.
- B.* If a blowdown line inspection is required per BwOP CW-12, or initiating BwARs, the Blowdown Vacuum Breaker Valve portion of this surveillance need only be performed (with the exception steps F.3 & G.3 do not apply). The associated predefine shall only be credited as a partial surveillance.

E. LIMITATIONS AND ACTIONS

- A.* To preclude entry into confined space, all inspections/valve manipulations to be performed without personnel entry into the valve pit.
- B.* Leaking CW Blowdown Vacuum Breakers shall be treated as possible NPDES violation and potentially contaminated (water/soil).
- C.* If any leak is discovered in the Blowdown system, CONTACT the Shift Manager immediately; generate an Issue Report (IR).
- D.* CONTACT Radiation Protection immediately if any leaks are discovered in the CW Blowdown system.
- E.* NOTIFY the licensed Wastewater Treatment Operator (Via Chemistry Department) if any leaks are discovered in the CW Blowdown system

- E. *Ch* If a large leak (ie; water running off general area) is discovered in the Makeup system, CONTACT the Shift Manager immediately, generate an Issue Report (IR).
- Ch* NOTIFY the licensed Wastewater Treatment Operator (Via Chemistry Department) if large leaks (ie; water running off general area) are discovered in CW makeup system.
- Ch* IF, during the surveillance performance, debris is discovered on a valve which could interfere with valve operation and/or excessive corrosion build up is present on external valve assembly components (ie; bolting, air release piping, etc.), GENERATE a Work Request (WR) to have the valve repaired.
- Ch* IF, during the surveillance performance, the butterfly isolation valve being cycled will not operate, or appears to be too difficult to operate, GENERATE an Issue Report (IR).

F. MAIN BODY

**NOTE**

*E* To preclude entry into confined space, all inspections/valve manipulations to be performed without personnel entry into the valve pit.

**NOTE**

*E* Perform Steps 1 through 6 for each of the valves listed on the blowdown or makeup data sheets.

- E* REMOVE the manhole cover for the associated valve pit.
2. PERFORM a visual inspection of the Vacuum Breaker valve and its associated Air Release valve. Specific items to look for are listed below:
- E*. Water leaking from top of Vacuum Breaker valve.
  - E*. Water leaking from the vent of Air Release valve.
  - E*. Debris on valve which could interfere with valve operation.
  - E*. Excessive corrosion build up on external valve assembly components (ie; bolting, air release piping, etc.).
  - E*. High water level around base Vacuum Breaker valve.
- E*3. IF vacuum Breaker butterfly isolation valve to be stroked in the next step has a locking device, THEN remove the locking device (otherwise N/A).
- E*4. OPERATE Vacuum Breaker butterfly isolation through a full cycle of operation.
- E*5. IF locking device was removed in Step F.3, THEN replace the locking device (otherwise N/A).
- E*6. REPLACE the manhole cover for the associated valve pit.
- E*7. PERFORM Steps 1 through 6 for each of the valves listed on Blowdown and/or Makeup data sheets.
- E*8. GENERATE an Issue Report (IR) for any valves w/ UNSAT conditions on the data sheet(s).

F. *6.* GENERATE an Issue Report (IR) for any of the following conditions: 1) any blowdown valves with leakage, 2) any makeup valves with large leakage (ie; water running off general area), and/or 3) isolation valves which cycled UNSAT.

*10.* FORWARD a copy of data sheets to System Engineering for trending purposes.

G. ACCEPTANCE CRITERIA

**NOTE**

*6.* Generate an Issue Report (IR) for any Acceptance Criteria not met.

*1.* No visible sign of water leakage from vacuum breaker valve assemblies listed on the data sheet. Applicable to blowdown vacuum breakers only.

*2.* No large leakage (ie; water running off general area) from vacuum breaker valve assemblies listed on the data sheet. Applicable to makeup vacuum breakers only.

*3.* Each isolation valve on the data sheet(s) has been operated through a full cycle of operation.



CW BLOWDOWN VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET

**NOTE**  
E Contact Radiation Protection immediately if any leaks are discovered in the CW Blowdown system.

**NOTE**  
E Vacuum breaker valves are listed on data sheet starting at the River Screen House and working back to the plant.

**NOTE**  
E Generate a Work Request (WR) for any valves with UNSAT conditions. Generate an Issue Report (IR) for any Blowdown Valves with UNSAT leakage and/or Isolation Valves, which cycled UNSAT.

0CW078

Location:    O    0.1 mile north of Smiley Rd. & 50' west of Hwy 113. Gain access from Hwy 113.  
              O    N 41° 15.046'  
                      W 88° 08.276'

- ¢ 1. Valve assembly leak-free:    (SAT) UNSAT    (Circle appropriate)
2. Debris present on valve:    (SAT) UNSAT    (Circle appropriate)
3. Excessive external corrosion:   (SAT) UNSAT    (Circle appropriate)
4. Water present in valve pit:   (NO) YES \_\_\_ inches   (Circle appropriate)
- ¢ 5. 0CW077 Isolation Valve cycled:   (SAT) UNSAT    (Circle appropriate)

Comments: \_\_\_\_\_

Ea    11-11-05  
Initial    Date

CW BLOWDOWN VACUUM BREAKER VALVE ANNUAL INSPECTION  
 DATA SHEET (Contd)

0CW075

Location: ○ 0.2 mile north of Smiley Rd. & 0.1 mile west of West River Rd (22400 West). Gain access from Smiley Rd. near visible natural gas pipe crossing sign.  
 ○ N 41° 15.023'  
 W 88° 09.166'

- |   |    |                                |                                      |              |                      |
|---|----|--------------------------------|--------------------------------------|--------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES__ inches | (Circle appropriate) |
| ¢ | 5. | 0CW074 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |

Comments: \_\_\_\_\_

  E      11-11-05  
 Initial      Date

0CW144

Location: ○ 0.2 mile north of Smiley Rd. & 0.5 mile west of West River Rd (22400 West). Gain access from Smiley Rd. near visible natural gas pipe crossing sign (same starting point as 0CW075 vlv).  
 ○ N 41° 15.017'  
 W 88° 09.575'

- |   |    |                                |                                      |              |                      |
|---|----|--------------------------------|--------------------------------------|--------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES__ inches | (Circle appropriate) |
| ¢ | 5. | 0CW143 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | UNSAT        | (Circle appropriate) |

Comments: \_\_\_\_\_

  E      11-11-05  
 Initial      Date

CW BLOWDOWN VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

OCW069

Location: ○ 0.2 mile North of Smiley Rd. & 1.2 mile west of West River Rd. (22400 West). Gain access from Smiley Rd. on east side of farmer fence row at steel gate.  
○ N 41° 15.001'  
W 88° 10.384'

- ¢ 1. Valve assembly leak-free: SAT UNSAT (Circle appropriate)  
2. Debris present on valve: SAT UNSAT (Circle appropriate)  
3. Excessive external corrosion: SAT UNSAT (Circle appropriate)  
4. Water present in valve pit: NO YES \_\_\_ inches (Circle appropriate)  
¢ 5. OCW068 Isolation Valve cycled: SAT UNSAT (Circle appropriate)

Comments: \_\_\_\_\_

Es 11-11-06  
Initial Date

✓ OCW066

Location: ○ 0.2 mile north of Smiley Rd. & 0.5 mile east of Essex Rd. Gain access from Essex Rd. near cemetery.  
○ N 41° 14.998'  
W 88° 10.726'

- ¢ 1. Valve assembly leak-free: SAT UNSAT (Circle appropriate)  
2. Debris present on valve: SAT UNSAT (Circle appropriate)  
3. Excessive external corrosion: SAT UNSAT (Circle appropriate)  
4. Water present in valve pit: NO YES \_\_\_ inches (Circle appropriate)  
¢ 5. OCW065 Isolation Valve cycled: SAT UNSAT (Circle appropriate)

Comments: \_\_\_\_\_

Es 11-11-05  
Initial Date

CW BLOWDOWN VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

OCW140

Location: ○ 0.2 mile north of Smiley Rd. & 0.2 mile east of Essex Rd. Gain access from Essex Rd. near cemetery (same starting point as OCW066).  
○ N 41° 14.994'  
W 88° 11.005'

- |   |    |                                |                                      |                |                      |
|---|----|--------------------------------|--------------------------------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | OCW139 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
- Comments: \_\_\_\_\_

     11-9-05  
Initial Date

OCW063

Location: ○ 0.2 mile north of Smiley Rd. & 0.1 mile west of Essex Rd. Gain access from Smiley Rd. near forest preserve property drive.  
○ N 41° 14.969'  
○ W 88° 11.494'

- |   |    |                                |                                      |                |                      |
|---|----|--------------------------------|--------------------------------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | OCW062 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
- Comments: \_\_\_\_\_

     11-11-05  
Initial Date

CW BLOWDOWN VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

OCW138

Location:   ○   0.2 mile north of Smiley Rd. & 0.7 mile west of Essex Rd. Gain access  
                  ○   from Smiley Rd. at Braidwood Dunes & Savanna Nature Preserve sign.  
                  ○   N 41° 14.962'  
                  ○   W 88° 12.097'

- |   |    |                                |            |                |                      |
|---|----|--------------------------------|------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <u>NO</u>  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | OCW137 Isolation Valve cycled: | <u>SAT</u> | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

E    11-11-05  
Initial    Date

OCW060

Location:   ○   0.2 mile due north of Braidwood holding pond. Gain access from holding  
                  ○   pond at demineralizer makeup pump house.  
                  ○   N 41° 14.681'  
                  ○   W 88° 12.641'

- |   |    |                                |            |                |                      |
|---|----|--------------------------------|------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <u>NO</u>  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | OCW059 Isolation Valve cycled: | <u>SAT</u> | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

J    11-9-05  
Initial    Date

CW BLOWDOWN VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

0CW136

- Location:  0.2 mile north of holding pond & 0.1 mile west of 0CW060 valve. Gain access from holding pond at demineralizer makeup pump house (same starting point as 0CW060).  
 N 41° 14.618'  
 W 88° 12.834'

- ¢ 1. Valve assembly leak-free:  SAT  UNSAT (Circle appropriate)  
 2. Debris present on valve:  SAT  UNSAT (Circle appropriate)  
 3. Excessive external corrosion:  SAT  UNSAT (Circle appropriate)  
 4. Water present in valve pit:  NO YES\_\_ inches (Circle appropriate)  
 ¢ 5. 0CW135 Isolation Valve cycled:  SAT  UNSAT (Circle appropriate)

Comments: \_\_\_\_\_

         11-9-05  
Initial Date

0CW058

V13-1

- Location:  50' due south of switch yard. Gain access from gravel road just south of switch yard.  
 N 41° 14.567'  
 W 88° 13.482'

- ¢ 1. Valve assembly leak-free:  SAT  UNSAT (Circle appropriate)  
 2. Debris present on valve:  SAT  UNSAT (Circle appropriate)  
 3. Excessive external corrosion:  SAT  UNSAT (Circle appropriate)  
 4. Water present in valve pit:  NO YES\_\_ inches (Circle appropriate)  
 ¢ 5. 0CW057 Isolation Valve cycled:  SAT  UNSAT (Circle appropriate)

Comments: SAT HAS 0CW058 CLOSED DUE TO LEAKAGE

         11-9-05  
Initial Date

CW MAKEUP VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET

**NOTE**  
E Vacuum breaker valves are listed on data sheet starting at the River Screen House and working back to the plant.

**NOTE**  
E Generate a Work Request (WR) for any valves with UNSAT conditions. Generate an Issue Report (IR) for any Makeup Valves with large leakage (i.e., water running off general area) and/or Isolation Valves which cycled UNSAT.

0CW146

Location:  0.1 mile north of Smiley Rd. & 50' west of Hwy 113. Gain access from Hwy 113.  
 N 41° 15.045'  
W 88° 08.277'

- |   |    |                                |                                      |                |                      |
|---|----|--------------------------------|--------------------------------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | 0CW031 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

N/A  
Pages 1-8 → 0-12  
are for the Make-up  
line.

E / 11-11-05  
Initial Date

CW MAKEUP VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

OCW036

- Location: ○ 0.2 mile north of Smiley Rd. & 0.1 mile west of West River Rd. (22400 West). Gain access from Smiley Rd. near visible natural gas pipe crossing sign.  
○ N 41° 15.019'  
W 88° 09.159'

- |   |    |                                |                                      |                             |                      |
|---|----|--------------------------------|--------------------------------------|-----------------------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input checked="" type="radio"/> SAT | <input type="radio"/> UNSAT | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | <input type="radio"/> UNSAT | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | <input type="radio"/> UNSAT | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES ___ inches              | (Circle appropriate) |
| ¢ | 5. | OCW035 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | <input type="radio"/> UNSAT | (Circle appropriate) |

Comments: \_\_\_\_\_

EC 11-11-05  
Initial Date

OCW124

- Location: ○ 0.2 mile north of Smiley Rd. & 0.5 mile west of West River Rd. (22400 West). Gain access from Smiley Rd. near visible natural gas pipe crossing sign (same starting point as OCW036 vlv).  
○ N 41° 15.017'  
W 88° 09.576'

- |   |    |                                |                                      |  |                      |
|---|----|--------------------------------|--------------------------------------|--|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input type="radio"/> SAT            | <input checked="" type="radio"/> UNSAT | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | <input type="radio"/> UNSAT            | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | <input type="radio"/> UNSAT            | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES ___ inches                         | (Circle appropriate) |
| ¢ | 5. | OCW123 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | <input type="radio"/> UNSAT            | (Circle appropriate) |

Comments: AIR RELEASE VALVE IS LEAKING CONTINUOUSLY  
OCW124 IS CLOSED & EST DUNG

EC 11-11-05  
Initial Date



CW MAKEUP VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

0CW039

- Location: ○ 0.2 mile north of Smiley Rd. & 1.2 mile west of West River Rd. (22400 West). Gain access from Smiley Rd. on east side of farmer fence at steel gate.  
○ N 41° 15.000'  
W 88° 10.385'

- |   |    |                                |            |                |                      |
|---|----|--------------------------------|------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <u>NO</u>  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | 0CW038 Isolation Valve cycled: | <u>SAT</u> | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

E      11-11-05  
Initial      Date

0CW128

- Location: ○ 0.2 mile north of Smiley Rd. & 0.5 mile east of Essex Rd. Gain access from Essex Rd. near cemetery.  
○ N 41° 14.997'  
W 88° 10.726'

- |   |    |                                |            |                |                      |
|---|----|--------------------------------|------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <u>NO</u>  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | 0CW127 Isolation Valve cycled: | <u>SAT</u> | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

J      11-9-05  
Initial      Date

CW MAKEUP VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

0CW130

Location: ○ 0.2 mile north of Smiley Rd. & 0.2 mile east of Essex Rd. Gain access from Essex Rd. near cemetery (same starting point as 0CW128).  
○ N 41° 14.989'  
○ W 88° 11.007'

- |   |    |                                |            |                |                      |
|---|----|--------------------------------|------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <u>NO</u>  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | 0CW129 Isolation Valve cycled: | <u>SAT</u> | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

Q 1/11-9-05  
Initial Date

0CW132

Location: ○ 0.2 mile north of Smiley Rd. & 0.1 mile west of Essex Rd. Gain access from Smiley Rd. near forest preserve property drive.  
○ N 41° 14.969'  
○ W 88° 11.494'

- |   |    |                                |            |                |                      |
|---|----|--------------------------------|------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <u>SAT</u> | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <u>NO</u>  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | 0CW131 Isolation Valve cycled: | <u>SAT</u> | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

E 1/11-11-05  
Initial Date

CW MAKEUP VACUUM BREAKER VALVE ANNUAL INSPECTION  
DATA SHEET (Contd)

OCW134

- Location:   ○   0.2 mile north of Smiley Rd. & 0.7 mile west of Essex Rd. Gain access from Smiley Rd. at Braidwood Dunes & Savanna Nature Preserve sign.  
              ○   N 41° 14.962'  
              ○   W 88° 12.097'

- |   |    |                                |                                      |                |                      |
|---|----|--------------------------------|--------------------------------------|----------------|----------------------|
| ¢ | 1. | Valve assembly leak-free:      | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 2. | Debris present on valve:       | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 3. | Excessive external corrosion:  | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |
|   | 4. | Water present in valve pit:    | <input checked="" type="radio"/> NO  | YES ___ inches | (Circle appropriate) |
| ¢ | 5. | OCW133 Isolation Valve cycled: | <input checked="" type="radio"/> SAT | UNSAT          | (Circle appropriate) |

Comments: \_\_\_\_\_

E      11-11-05  
Initial      Date