American Society of Sanitary Engineering

PRODUCT (SEAL) LISTING PROGRAM

ASSE STANDARD #1048 - REVISED: 2011

Double Check Detector Fire Protection Backflow Prevention Assemblies

Separate, complete laboratory evaluation report forms for each alternate orientation much be submitted to ASSE for review.

MANUFACTURER: _____

CONTACT PERSON: _____ **E-MAIL:** _____

ADDRESS: _____

LABORATORY FILE NUMBER: _____

MODEL # TESTED: _____

MODEL SIZE: _____

ADDITIONAL MODELS REPORT APPLIES TO: _____

ADDITIONAL MODEL INFORMATION (i.e. orientation, series, end connections, shut-off valves): _____

- ○ DCDA
- ○ HORIZONTAL
- ○ VERTICAL FLOW UP
- ○ VERTICAL FLOW DOWN
- ○ OTHER _____

DATE MODELS RECEIVED BY LABORATORY: _____

DATE TESTING BEGAN: _____

DATE TESTING WAS COMPLETED: _____

IF MODELS WERE DAMAGED DURING SHIPMENT, DESCRIBE DAMAGES: _____

PROTOTYPE OR PRODUCTION: _____

General information and instructions for the testing engineer:

The results within this report apply only to the models listed above.

There may be items for which the judgment of the test engineer will be involved. Should there be a question of compliance with that provision of the standard, a conference with the manufacturer should be arranged to enable a satisfactory solution of the question.

Should disagreement persist and compliance remain in question by the test agency, the agency shall, if the product is in compliance with all other requirements of the standard, file a complete report on the questionable items together with the test report, for evaluation by the ASSE Seal Board. The Seal Board will then review and rule on the question of compliance with the intent of the standard then involved.

Documentation of material compliance must be furnished by the manufacturer. The manufacturer shall furnish to the testing agency, a bill of material which clearly identifies the material of each part included in the product construction. This identification must include any standards which relate thereto.

SECTION 1

1.0 General

1.1 Application

Does the purpose of the device agree with that of the standard? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

NOTE: This standard applies to single as well as manifold assemblies.

1.2.1 Description

Does the device conform to the product described in the standard? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

Is the assembly a DCDA or a DCDA-II? ○ RPDA ○ RPDA-II

1.2.2 Size _____inches (_____ mm)

1.2.3 Rated Pressure

What is the minimum working pressure as noted by the manufacturer?

_____ psi (_____kPa)

What is the maximum working pressure as noted by the manufacturer?

_____ psi (_____kPa)

1.2.4 Temperature range as noted by the manufacturer:

_____ °F to _____ °F (_____ °C to _____ °C)

1.3.2.1 Were female pipe threaded connections so constructed that it would not be possible to run a pipe into them far enough to restrict the flow through the assembly or interfere with working parts? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

1.3.2.2 Is the assembly repairable and seats replaceable without removing the assembly from the line? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

1.3.2.4 Were test cocks properly located? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

1.3.2.5 List the inlet and outlet thread size(s) for the test cocks.

Inlet thread size: _____inches (_____ mm)

Outlet thread size: _____inches (_____ mm)

1.3.2.6 State the manufacturer, size and model number of all shut-off valves tested with the device:

Mainline: _____

By-Pass: _____

1.3.3 Does the DCDA Bypass line include a water meter or alarm signaling device or both, and a listed ASSE 1015 DC Assembly? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

Does the DCDA-II Bypass line include a water meter or alarm signaling device or both, a check and two (2) test cocks located between two (2) shut-off valves? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

State the manufacturer's size and model numbers of all meters used:

_____

SECTION II

2.0 Test Specimens

2.1 State the quantity of units provided for the evaluation of the orientation requested. _____

2.2 How many units were utilized during the laboratory evaluation?_____

2.3 Drawings

Were assembly drawings, installation drawings and other technical data which are needed to enable a testing agency to determine compliance with this standard submitted with the assembly?
○ Yes ○ No

Were these drawings reviewed in the laboratory? ○ Yes ○ No

Alternate Orientation:

Has an alternate orientation, other than that marked on page 1 of this laboratory evaluation report form been requested? ○ Yes ○ No

If yes, were the required additional samples submitted per Section 2.1? ○ Yes ○ No

NOTE: Separate, complete laboratory evaluation report forms must be submitted for each alternate orientation. The correct number of devices specified in the standard for each intended orientation must be submitted to the testing facility for evaluation to this standard.

2.5 Manifold Device

Is this a manifold assembly type backflow preventer? ○ Yes ○ No

If yes, were the individual devices that constitute the manifold tested to each section of the standard in their intended orientation based on the pipe size for each individual device?
○ Yes ○ No ○ Questionable

If questionable, explain: _____

SECTION III

3.0 Performance Requirements and Compliance Testing

3.1 Independence of Components

How was the independence of components verified?
○ Drawing Review
○ Physical cycling of components
○ Other _____

In Compliance? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

3.2 Hydrostatic Test of Complete Assembly

What was the pressure used for this test? _____ psi (_____ kPa)

The test period was for: _____ minutes

Were there any leaks or indications of damage to the assembly? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

3.3 Seat Leakage Test for Shut-Off Valves

What was the pressure applied to the inlet side of the #1 shut-off valve?
_____ psi (_____ kPa)

How long was the pressure held? _____ minutes

What was the pressure applied to the outlet side of the #1 shut-off valve?
_____ psi (_____ kPa)
How long was the pressure held? _____ minutes

Was the sealing mechanism different between the #1 shut-off valve and the #2 shut-off valve?
◯ Yes ◯ No

If yes:
What was the pressure applied to the inlet side of the #2 shut-off valve?
_____ psi (_____ kPa)
How long was the pressure held? _____ minutes

What was the pressure applied to the outlet side of the #2 shut-off valve?
_____ psi (_____ kPa)
How long was the pressure held? _____ minutes
Was there any leakage from the shut-off valve(s)? ◯ Yes ◯ No

3.4 Hydrostatic Backpressure Test of Bypass Check (For DCDA-II only)
What was the backpressure applied to the bypass check? _____ psi (_____ kPa)
The test period was for _____ minutes
Were there any leaks or indications of damage to the assembly? ◯ Yes ◯ No ◯ Questionable
If questionable, explain: _____

3.5 Hydrostatic Backpressure Test of Checks
What was the pressure applied to the downstream side of the first check valve?
_____ psi (_____ kPa)
What was the initial height of water in the sight glass in test cock #2?
_____inches (_____ mm)
What was the final height of water in the sight glass in test cock #2?
_____inches (_____ mm)
The test period was for _____ minutes

Were there any leaks as indicated by a rise of the water level in the sight glass or indications of damage? ◯ Yes ◯ No

What was the pressure applied to the downstream side of the second check valve?
_____ psi (_____ kPa)
What was the initial height of water in the sight glass in test cock #3?
_____inches (_____ mm)
What was the final height of water in the sight glass in test cock #3?
_____inches (_____ mm)
The test period was for _____ minutes

Were there any leaks as indicated by a rise of the water level in the sight glass or indications of damage? ◯ Yes ◯ No

3.6 Allowable Pressure Loss at Rated Flow
Was the assembly installed per Figure 1? ◯ Yes ◯ No
If no, explain: _____

What was the rated water flow for the assembly? _____ GPM (_____ L/s)
What was the supply pressure used for this test? _____ psi (_____kPa)
What pressure loss through the piping system (if any) was deducted?
_____ psi (_____kPa)

What was the pressure loss observed at flows of:

GPM	L/s	psi	(kPa)
05.0	0.32	_____	_____
10.0	0.63	_____	_____
15.0	0.95	_____	_____
20.0	1.26	_____	_____
25.0	1.58	_____	_____
30.0	1.89	_____	_____
35.0	2.21	_____	_____
40.0	2.52	_____	_____
45.0	2.84	_____	_____
50.0	3.15	_____	_____

What was the pressure loss at:
150% of Rated Flow _____ psi (_____kPa)
200% of Rated Flow _____ psi (_____kPa)
What was the maximum pressure loss observed at flows from (0) GPM to rated flow (both ascending and descending)? _____ psi (_____kPa)

Did the pressure drop generally increase from static up to a flow of 50.0 GPM (3.15 L/s) with a maximum total downward deviation of 10% from the highest previous value at any point?
○ Yes ○ No

Was there any damage or permanent deformation of the internal components of the assembly?
○ Yes ○ No

Was the assembly on test in complete compliance with the criteria of Section 3.6?
○ Yes ○ No

3.7 Bypass Flow Detection

When test valve #4 was opened and the flow regulated, record the flow on the flow meter upstream of test valve #4? _____ GPM (_____ L/s)

Was a measuring tank used? ○ Yes ○ No
If yes, record the flow: _____ GPM (_____ L/s)

At what GPM (L/s) did the reading on the flow meter/collection tank exceed the reading on the meter in the bypass line? _____ GPM (_____ L/s)

Did the water meter or alarm device indicate flow at or before 2.0 GPM (0.13 L/s)?
○ Yes ○ No

3.8 Drip Tightness of First Check

What was the initial height of water in the sight glass at test cock #2: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #2 and #3? _____ inches (_____ mm)

The test period was for: _____ minutes.

3.9 Drip Tightness of the Second Check

What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #4: _____ inches (_____ mm)

What was the final height difference in the water levels between the sight glasses at test cocks #3 and #4? _____ inches (_____ mm)

The test period was for: _____ minutes.

3.10 Drip Tightness of Bypass Check (For DCDA-II Assemblies)

What was the initial height difference between the two sight glasses? _____ inches (_____ mm)
What was the final height difference between the two sight glasses? _____ inches (_____ mm)

The test period was for: _____ minutes.

3.11 Deterioration at Manufacturer's Extremes of Temperature and Pressure Ranges

Temperature range as noted by the manufacturer:
_____ °F to _____ °F (_____ °C to _____ °C)
Maximum rated pressure as noted by the manufacturer: _____ psi (_____ kPa)

Water at: _____ °F (_____ °C)
was circulated through the assembly at: _____ psi (_____ kPa)
at a flow rate of: _____ GPM (_____ L/s)
for: _____ hours

While still at temperature, the assembly shall be retested to Sections 3.8 and 3.9, and 3.10 (for DCDA-II only):

Retest Section 3.8

What was the initial height of water in the sight glass at test cock #2: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #2 and #3? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.9

What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #4: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #3 and #4? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.10

What was the initial height difference between the two sight glasses? _____ inches (_____ mm)
What was the final height difference between the two sight glasses? _____ inches (_____ mm)
The test period was for: _____ minutes.

3.11 continued

Upon completion of the 100 hours and the retesting of Sections 3.8, 3.9 and 3.10, water at: _____ °F (_____ °C) was circulated through the assembly.

Once the assembly reaches ambient temperature, the assembly shall be retested to Sections 3.2 and 3.5:

Retest Section 3.2

What was the pressure used for this test? _____ psi (_____ kPa)
The test period was for: _____ minutes

Were there any leaks or indications of damage to the assembly? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

Retest Section 3.5

What was the pressure applied to the downstream side of the first check valve?
_____ psi (_____ kPa)
What was the initial height of water in the sight glass in test cock #2?
_____inches (_____ mm)
What was the final height of water in the sight glass in test cock #2?
_____inches (_____ mm)
The test period was for_____ minutes

Were there any leaks as indicated by a rise of the water level in the sight glass or indications of damage? ○ Yes ○ No

What was the pressure applied to the downstream side of the second check valve?
_____ psi (_____ kPa)
What was the initial height of water in the sight glass in test cock #3?
_____inches (_____ mm)
What was the final height of water in the sight glass in test cock #3?
_____inches (_____ mm)
The test period was for_____ minutes

Were there any leaks as indicated by a rise of the water level in the sight glass or indications of damage? ○ Yes ○ No

3.11 continued

Upon completion of testing at ambient water temperature,
water at: _____ °F (_____ °C)
was circulated through the assembly for: _____hours
and then the assembly was retested to Sections 3.8 and 3.9, and 3.10 (for DCDA-II only):

Retest Section 3.8

What was the initial height of water in the sight glass at test cock #2: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #2 and #3? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.9

What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #4: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #3 and #4? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.10

What was the initial height difference between the two sight glasses? _____ inches (_____ mm)
What was the final height difference between the two sight glasses? _____ inches (_____ mm)
The test period was for: _____ minutes.

3.11 continued

Was the assembly on test in complete compliance with the criteria of Section 3.11?
○ Yes ○ No

3.12 Cycle Test

(a) Flow water at 25% of the rated flow (see Table 1 for size and rated flow)
What was the flow rate? _____ GPM (_____ L/s)
What was the supply pressure? _____ psi (_____ kPa)
The test period was for _____ seconds

(b) What was the static pressure? _____ psi (_____ kPa)
The test period was for _____ seconds

(c) The pressure was decreased to: _____ psi (_____ kPa)
The test period was for _____ seconds

(d) Backpressure was increased to: _____ psi (_____ kPa)
The test period was for _____ seconds

(e) Remove backpressure

(f) Steps (a) through (e) were repeated for _____ cycles.

(g) Retest assembly to Sections 3.8 and 3.9, and 3.10 (for DCDA-II only):

Retest Section 3.8

What was the initial height of water in the sight glass at test cock #2: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #2 and #3? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.9

What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #4: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #3 and #4? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.10

What was the initial height difference between the two sight glasses? _____ inches (_____ mm)
What was the final height difference between the two sight glasses? _____ inches (_____ mm)
The test period was for: _____ minutes.

3.12 continued

(h) Flow water at 50% of the rated flow.
What was the flow rate? _____ GPM (_____ L/s)
What was the supply pressure? _____ psi (_____ kPa)
The test period was for _____ seconds

(i) Steps (b) through (e) were repeated for _____ cycles.

(j) Retest assembly to Sections 3.8 and 3.9, and 3.10 (for DCDA-II only):

Retest Section 3.8

What was the initial height of water in the sight glass at test cock #2: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)

What was the final height difference in the water levels between the sight glasses at test cocks #2 and #3? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.9

What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #4: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #3 and #4? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.10

What was the initial height difference between the two sight glasses? _____ inches (_____ mm)
What was the final height difference between the two sight glasses? _____ inches (_____ mm)
The test period was for: _____ minutes.

3.12 continued

(k) A backpressure of: _____ psi (_____kPa)
was applied for: _____ minutes
Record the leakage at test cock #3: _____ GPM (_____ L/s)

(l) A backpressure of: _____ psi (_____kPa)
was applied for: _____ minutes
Record the leakage at test cock #3: _____ GPM (_____ L/s)

(m) A backpressure of: _____ psi (_____kPa)
was applied for: _____ minutes
Supply pressure was reduced to: _____ GPM (_____ L/s)
Record the leakage at test cock #2: _____ GPM (_____ L/s)

(n) The backpressure at test cock #3 was raised to: _____ psi (_____kPa)
The test period was for: _____ minutes
Record the leakage at test cock #2: _____ GPM (_____ L/s)

(o) Flow water at 75% of the rated flow.
What was the flow rate? _____ GPM (_____ L/s)
What was the supply pressure? _____ psi (_____kPa)
The test period was for _____ seconds

(p) Steps (b) through (e) were repeated for _____ cycles.

(q) Retest assembly to Sections 3.8 and 3.9, and 3.10 (for DCDA-II only):

Retest Section 3.8

What was the initial height of water in the sight glass at test cock #2: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #2 and #3? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.9

What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #4: _____ inches (_____ mm)

What was the final height difference in the water levels between the sight glasses at test cocks #3 and #4? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.10

What was the initial height difference between the two sight glasses? _____ inches (_____ mm)
What was the final height difference between the two sight glasses? _____ inches (_____ mm)
The test period was for: _____ minutes.

3.12 continued

(r) Flow water at 100% of the rated flow.
What was the flow rate? _____ GPM (_____ L/s)
What was the supply pressure? _____ psi (_____kPa)
The test period was for _____ seconds

(s) Steps (b) through (e) were repeated for _____ cycles.

(t) Retest assembly to Sections 3.8 and 3.9, and 3.10 (for DCDA-II only):

Retest Section 3.8

What was the initial height of water in the sight glass at test cock #2: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #2 and #3? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.9

What was the initial height of water in the sight glass at test cock #3: _____ inches (_____ mm)
What was the initial height of water in the sight glass at test cock #4: _____ inches (_____ mm)
What was the final height difference in the water levels between the sight glasses at test cocks #3 and #4? _____ inches (_____ mm)
The test period was for: _____ minutes.

Retest Section 3.10

What was the initial height difference between the two sight glasses? _____ inches (_____ mm)
What was the final height difference between the two sight glasses? _____ inches (_____ mm)
The test period was for: _____ minutes.

3.12 continued

Was the USC FCCC & HR Life Cycle test protocol used? ○ Yes ○ No
If yes, attach the test results.

Was the assembly on test in complete compliance with the criteria of Section 3.12?
○ Yes ○ No

3.13 Body Strength Test

What was the pressure used for this test? _____ psi (_____ kPa)
The test period was for _____ minutes

Were there any leaks or indications of damage? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

3.14 Seat Adhesion Test

Did the adhesion test meet all of the requirements of Section 18 of the UL Standard 312?
○ Yes ○ No ○ Questionable

If questionable, explain: _____

Attach those test results.

3.15 High Velocity Test

What was the flow velocity used for this test? _____ ft/sec (_____ m/sec)
This velocity was maintained for _____ minutes

Was there any damage or permanent deformation to any of the internal components of the assembly? ○ Yes ○ No

Did any portion of the assembly become dislodged or restrict flow during this velocity test? ○ Yes ○ No

Was the assembly (or assemblies) used for testing of Sections 3.1 through 3.15 in complete compliance with the criteria of this standard? ○ Yes ○ No

SECTION IV

4.0 Detailed Results

4.1 Materials

Did the manufacturer provide evidence that the materials make-up of the device has been used successfully in similar applications for at least one (1) year? ○ Yes ○ No

4.1.1 Materials in Contact with Water

Did any solder and fluxes in contact with the potable water supply exceed 0.2% lead content?
○ Yes ○ No ○ Questionable

If questionable, explain: _____

4.1.2 Elastomers and Polymers

Did all of the elastomers and polymers in contact with the water comply with the requirements of the U.S. Code of Federal Regulations (CFR) Title 21, Section 177?
○ Yes ○ No ○ Questionable

If questionable, explain: _____

4.1.3 Did all ferrous cast parts conform to ASTM A126 for gray iron or ASTM A536 Grade 65-45-12 for ductile iron? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

4.1.4 Were all ferrous cast parts in contact with the water flowing through the assembly protected against corrosion by epoxy coating or other equivalent methods? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

4.1.5 Were all stainless steel components in contact with water of Series 300 s/s? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

4.1.6 Were all non-ferrous wetted parts of a corrosion resistance of at least equal to an alloy of 79% copper? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

4.1.7 Were all internal non-cast parts of a corrosion resistance of at least equal to an alloy of 79% copper? ○ Yes ○ No ○ Questionable

If questionable, explain: _____

4.1.8 Were all springs in contact with the water flowing through the assembly of a corrosion resistance of at least equal to stainless steel series 300? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.1.9 Were all flexible non-metallic parts of a design to withstand all the criteria of this standard without change in their physical characteristics? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.1.10 List the check and relief valve seating materials:
Check Valve Disc & Seats: _____
Relief Valve Disc & Seats: _____

4.1.11 Were the seat rings of a corrosion resistance of at least equal to an alloy of 79% copper?
○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.1.12 Were the test cocks of a corrosion resistance of at least equal to an alloy of 79% copper.
○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.1.13 Do all pipe flanges conform to ASME B16.24 for bronze flanges and ASTM A126 for cast iron flanges? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.1.14 Do all pipe threads conform to ASME B1.20.1 for taper pipe threads and ASME B1.20.3 for dryseal? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.1.15 Do inlet and outlet grooved connections comply with AWWA C606? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.2 Marking Instructions

4.2.1 Marking of Mainline Assembly
Identify and list the markings found on the test assembly:
(a) Manufacturer's name or trademark: _____
(b) Type (DCDA or DCDA-II): _____
(c) Model number of the assembly: _____
(d) Model number of the bypass check or bypass assembly: _____
(e) Maximum rated pressure: _____
(f) Maximum rated temperature: _____
(g) Serial number consistent with the manufacturer's standard practice: _____
(h) Nominal valve size: _____
(i) The direction of water flow: _____
(j) Each shut-off valve shall be marked with the manufacturer's name or trademark and model number: _____

4.2.2 Was marking of the DCDA Bypass Assembly per ASSE 1015? ○ Yes ○ No

4.2.3 Identify and list the markings found on the DCDAII Bypass check:
(a) Manufacturer's name or trademark: _____
(b) Model number of the bypass check: _____

(c) The direction of water flow: _____

(d) Each shut-off valve shall be marked with the manufacturer's name or trademark and model number: _____

Describe how these markings were made: _____

4.3 Installation and Maintenance Instructions

4.3.1 Were instructions for installation submitted with the device? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.3.2 Did the installation instructions indicate the tested and approved installation orientation of the assembly? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.4 Maintenance

4.4 Were maintenance instructions furnished? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

4.5 Field Testing

4.4.4 Were field testing instructions furnished? ○ Yes ○ No ○ Questionable
If questionable, explain: _____

TESTING AGENCY: _____

ADDRESS: _____

PHONE: _____ **FAX:** _____

TEST ENGINEERS: _____

We Certify that the evaluations are based on our best judgements and that the test data recorded is an accurate record of the performance of the device on test.

SIGNATURE OF THE OFFICIAL OF THE AGENCY: _____

TITLE OF THE OFFICIAL: _____ **DATE:** _____

SIGNATURE AND SEAL OF THE REGISTERED PROFESSIONAL ENGINEER SUPERVISING THE LABORATORY EVALUATION:

SIGNATURE: _____

PE SEAL

*To insert images into document (PE seal and signatures)
Adobe Acrobat Pro users: At the top of the page, go to: Tools > Advanced Editing > TouchUp Object Tool. Once you have selected TouchUp Object Tool, right click within the document and select Place Image. Choose the image you want to place (PE seal or signature) and then select Open. Once the image is in the document, move and re-size the image accordingly. Save and send to ASSE.
Adobe Reader users: Adobe Reader does not allow users to place images into the document. You must print this completed document and then sign and stamp the PE seal by hand. You may then send the completed document to ASSE via fax or mail, or you can scan the completed document and send via e-mail.

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