Date: Sept. 23/15
Location: Durham, NY

### INSTRUMENT DETAILS
- **Tag #:** 1-TE4748A
- **System:** 188
- **Manufacturer:** Endress+Hauser
- **Description:** ECON. OUTLET TEMP.
- **Serial #:**
- **Model #:**
- **Calibrated Range:** 0°C to 300°C
- **Process Conn:**
- **Other:**

<table>
<thead>
<tr>
<th>Continuity</th>
<th>Ground O.K.</th>
<th>Ambient Temp O.K.</th>
<th>SS Tag</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FROM TIC</td>
<td>166.5°C</td>
<td>166.6°C</td>
</tr>
<tr>
<td>Test 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTPUT FROM 744</td>
<td>0°C/150°C/300°C</td>
<td>-0.9°C/150.1°C/30.3°C</td>
</tr>
<tr>
<td>Test 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TEST EQUIPMENT
- **Serial #:** 1085020
- **Model #:** 744
- **Calibration Date:** Jan. 19/15
- **Manufacturer:** FICKE

### TEST EQUIPMENT
- **Serial #:**
- **Model #:**
- **Calibration Date:**
- **Manufacturer:**

### COMMENTS

**STRIPED SCREW FOUND ON PUCK. BLACK WIRE TO DCS STILL READING BUT CAN'T TIGHTEN DOWN.**

Tested By:
- **Name:** Roger Heron
- **Date:** Sept. 23/15
- **Signature:**
- **Company:**

Accepted By:
- **Name:**
- **Date:**
- **Signature:**
- **Company:**

Printed: 26/08/2015
Retention Time = 7 years
### Calibration Test Report - Thermocouple

**Client:** Covanta  
**Date:** Sept 23/15  
**Location:** Durham - York  
**Contract #:**

#### INSTRUMENT DETAILS

- **Tag #:** ITE47188  
- **System:** H1B1R  
- **Manufacturer:** Endress + Hauser  
- **Description:** ECON. OUTLET TEMP  
- **Calibrated Range:** 0°C to 300°C  
- **Serial #:**  
- **Model #:**  
- **Process Conn:**

#### Continuity

<table>
<thead>
<tr>
<th>Continuity</th>
<th>Ground O.K.</th>
<th>Ambient Temp O.K.</th>
<th>SS Tag</th>
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#### Temp Input

<table>
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<tr>
<th>Test</th>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>FROM T1C</td>
<td>167.2°C</td>
<td>166.5°C</td>
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<tr>
<td>Test 2</td>
<td>OUTPUT FROM 744</td>
<td>0°C/150°C/300°C</td>
<td>-0.7°C/149.6°C/299.8°C</td>
</tr>
<tr>
<td>Test 3</td>
<td></td>
<td></td>
<td></td>
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</tbody>
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#### TEST EQUIPMENT

- **Serial #:** 1085020  
- **Model #:** 744  
- **Calibration Date:** Jan 19/15  
- **Manufacturer:** FLUKE

#### TEST EQUIPMENT

- **Serial #:**  
- **Model #:**  
- **Calibration Date:**  
- **Manufacturer:**

#### COMMENTS

One loose screw. Cleaned leads, powdery deposit on signal leads to DCS

---

**Tested By:**  
**Name:** Roger Harron  
**Signature:**  
**Date:** Sept 23/15  
**Company:** GRACE

---

**Accepted By:**  
**Name:**  
**Signature:**  
**Date:**  
**Company:**  

---

**Printed:** 26/08/2015  
**Filed in:**  
**Retention Time = 7 years**
**Calibration Test Report - Thermocouple**

**Client:** COVANTA  
**Date:** Sept. 23/15

**Location:** Durham, York

**Approved Date:**

### INSTRUMENT DETAILS

<table>
<thead>
<tr>
<th>Tag #</th>
<th>System</th>
<th>Manufacturer</th>
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<tbody>
<tr>
<td>9TE4749A</td>
<td>#2 5LR</td>
<td>Enduro + Hasee</td>
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<th>Description</th>
<th>Serial #</th>
<th>Model #</th>
<th>Calibrated Range</th>
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<tbody>
<tr>
<td>ECON. OUTLET TEMP</td>
<td></td>
<td></td>
<td>0°C → 300°C</td>
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<th>Process Conn</th>
<th>Other</th>
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### Continuity

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<th>SS Tag</th>
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<tr>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
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<tbody>
<tr>
<td>Test 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FROM TIC</td>
<td>166.5°C</td>
<td>166.6°C</td>
</tr>
<tr>
<td>Test 2</td>
<td>0°C/150°C/300°C</td>
<td>0.5°C/150.5°C/300°C</td>
</tr>
<tr>
<td>Test 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TEST EQUIPMENT

<table>
<thead>
<tr>
<th>Serial #</th>
<th>Model #</th>
<th>Calibration Date</th>
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<tbody>
<tr>
<td>1085020</td>
<td>744</td>
<td>Jan. 16/15</td>
</tr>
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</table>

**Manufacturer:** FLUKE

---

**COMMENTS**

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**Tested By:**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Signature:</th>
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<tbody>
<tr>
<td>Roger Herrera</td>
<td>Rodger Herrera</td>
</tr>
</tbody>
</table>

**Date:** Sept. 23/15

**Company:** Land Inst.

---

**Accepted By:**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Signature:</th>
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**Date:**

**Company:**

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**Printed:** 26/08/2015

**Filed in:** Retention Time = 7 years
** Calibration Test Report - Thermocouple **

Client: COVANTA  
Location: 
Contract #: 

** INSTRUMENT DETAILS **

- **Tag #:** 2-T6-4748A  
- **System:**  
- **Manufacturer:** Endrus Hauser

** Continuity Ground O.K. Ambient Temp O.K. SS Tag **

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<thead>
<tr>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Test 1</strong></td>
<td>165.9°C</td>
<td>165.0°C</td>
</tr>
<tr>
<td>FROM T/C</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Test 2</strong></td>
<td>0°C/150°C/300°C</td>
<td>-0.7°C/149.4°C/299.5°C</td>
</tr>
<tr>
<td>OUTPUT FROM 744</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Test 3</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** TEST EQUIPMENT **

- **Serial #:** 1085 020  
- **Model #:** 744  
- **Calibration Date:** Jan 11/15  
- **Manufacturer:** Fluke

** COMMENTS **

Tested By:  
Name: Raúl Herro  
Signature: 
Date: Sept 23/15  
Company: 

Accepted By:  
Name:  
Signature:  
Date:  
Company:  

Printed: 26/08/2015  
Retention Time = 7 years  
Page 1 of 1
Calibration Test Report - Thermocouple

Client: COVANTA

Date: Sept. 23/15

Location: Durham - York

Contract #: 

INSTRUMENT DETAILS
Tag #: ITF-5227
Description: FIELDWATER TEMP

System: 
Manufacturer: Temp Pro

Serial #: 
Model #: 
Calibrated Range: 0°-250° C

ENCL Rating: 
Process Conn: 
Other: 

<table>
<thead>
<tr>
<th>Continuity</th>
<th>Ground O.K.</th>
<th>Ambient Temp O.K.</th>
<th>SS Tag</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1 From T1C</td>
<td>138.6°C</td>
<td>138.6°C</td>
</tr>
<tr>
<td>Test 2 Output from 744</td>
<td>0°C/125°C/250°C</td>
<td>-0.1°C/125.3°C/250°C</td>
</tr>
<tr>
<td>Test 3</td>
<td></td>
<td></td>
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</tbody>
</table>

TEST EQUIPMENT
Serial #: 1095020
Model #: 744
Calibration Date: Jan. 17/15
Manufacturer: FLUKE

TEST EQUIPMENT
Serial #: 
Model #: 
Calibration Date: 
Manufacturer: 

COMMENTS
Replaced head, nipple broken at well, cup seized

Tested By:
Name: Rodger Heron
Signature: Rodger Heron
Date: Sept 23/15
Company: 

Accepted By:
Name: 
Signature: 
Date: 
Company: 

Printed: 26/08/2015
RetentionPolicy = 7 years

Page 1 of 1
Calibration Test Report - Thermocouple

Client: COVANTA
Date: Sept 23/15
Location: Durham, York
Contract #: 

INSTRUMENT DETAILS
Tag #: 9TE 5227
Description: FEEDWATER TEMP
Serial #: 
Model #: 
ENCL Rating: 
Process Conn: 
Calibrated Range: 0 - 250°C

Continuity | Ground O.K. | Ambient Temp O.K. | SS Tag
---|---|---|---

Temp Input | Actual Reading | Measured
---|---|---
Test 1 | FROM T/IC | 138.2°C | 138.2°C
Test 2 | OUTPUT FROM 744 | 0°C / 175°C / 250°C | -0.6°C / 174.6°C / 249.6°C
Test 3 |

TEST EQUIPMENT
Serial #: 1085020
Model #: 744
Calibration Date: Jan 18/15
Manufacturer: FLUKE

TEST EQUIPMENT
Serial #: 
Model #: 
Calibration Date: 
Manufacturer: 

COMMENTS

Tested By:
Name: Rodgers Herrera
Signature: 
Date: 
Company: 

Accepted By:
Name: 
Signature: 
Date: 
Company: 

Printed: 26/08/2015
Retention Time = 7 years
Page 1 of 1
# Calibration Test Report - Thermocouple

**Client:** Covanta  
**Location:** Dagham - York  
**Contract #:**  
**Date:** Sept 23/15

## INSTRUMENT DETAILS

<table>
<thead>
<tr>
<th>Tag #:</th>
<th>ITE-5223</th>
<th>System:</th>
<th>#1 B-L</th>
<th>Manufacturer: Temp Pro</th>
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</thead>
<tbody>
<tr>
<td>Description:</td>
<td>MAIN STEAM HEADER TEMP</td>
<td>Model #:</td>
<td></td>
<td>Calibrated Range: 0°C - 600°C</td>
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<tr>
<td>Serial #:</td>
<td></td>
<td>Process Conn:</td>
<td></td>
<td>Other:</td>
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<table>
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<th>Continuity</th>
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<th>Ambient Temp O.K.</th>
<th>SS Tag</th>
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<table>
<thead>
<tr>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>FROM T/C</td>
<td><strong>491.9°C</strong></td>
</tr>
<tr>
<td>Test 2</td>
<td>OUTPUT FROM 744</td>
<td>0°C</td>
</tr>
<tr>
<td>Test 3</td>
<td></td>
<td></td>
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## TEST EQUIPMENT

<table>
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<tr>
<th>Serial #:</th>
<th>1085020</th>
<th>Model #:</th>
<th>744</th>
<th>Calibration Date: Jan 19/15</th>
<th>Manufacturer: Fluke</th>
</tr>
</thead>
</table>

| Serial #: | | Model #: | | Calibration Date: | Manufacturer: |
|-----------|-------------------|---------|---------------------|

## COMMENTS

______________________________

Tested By: [Signature]  
**Date:** Sept 23/15  
**Company:** Grace East

Accepted By: [Signature]  
**Date:**  
**Company:**

Printed: 26/08/2015  
Retrieval Time = 7 years
## Calibration Test Report - Thermocouple

**Client:** Covanta  
**Location:** Durham - York  
**Contract #:** 

### INSTRUMENT DETAILS
- **Tag #:** 2765223  
- **System:** 284K  
- **Manufacturer:** Temp Pro  
- **Calibrated Range:** 0 → 600°C  

### Continuity  
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<th>Ground O.K.</th>
<th>Ambient Temp O.K.</th>
<th>SS Tag</th>
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<tr>
<th>Test</th>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>From T/C</td>
<td>487.5°C</td>
<td>487.1°C</td>
</tr>
<tr>
<td>Test 2</td>
<td>Output from 744</td>
<td>0°C/300°C/600°C</td>
<td>0°C/349.9°C/600°C</td>
</tr>
<tr>
<td>Test 3</td>
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</tbody>
</table>

### TEST EQUIPMENT
- **Serial #:** 1085020  
- **Model #:** 744  
- **Calibration Date:** Jan 15/15  
- **Manufacturer:** Fluke  

### TEST EQUIPMENT
- **Serial #:**          
- **Model #:**          
- **Calibration Date:**  
- **Manufacturer:**  

### COMMENTS
- Loose T/C Screws

---

**Tested By:**
- **Name:** Rodger Herron  
- **Signature:** Rodger Herron  
- **Date:** Sept. 23/15  
- **Company:**  

**Accepted By:**
- **Name:**  
- **Signature:**  
- **Date:**  
- **Company:**  

---

**Printed:** 26/08/2015  
**Retained Time:** 7 years  
**Page:** 1/1
# Calibration Test Report - Thermocouple

**Client:** COVANTA  
**Location:** Durham - York  
**Date:** 24/09/15

## Instrument Details
- **Tag #:** IT65229  
- **System:** #1 BIL  
- **Manufacturer:** Tempco
- **Description:** SH3 OUTLET TEMP  
- **Calibrated Range:** 0 - 600°C

### Continuity  
- **Ground O.K.**  
- **Ambient Temp O.K.**  
- **SS Tag**

### Test Input  
<table>
<thead>
<tr>
<th>Test</th>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>FROM T/2</td>
<td>499.2°C</td>
<td>499.1°C</td>
</tr>
<tr>
<td>Test 2</td>
<td>OUT PUT FROM 744 °C</td>
<td>300°C</td>
<td>600°C</td>
</tr>
<tr>
<td>Test 3</td>
<td>°C</td>
<td>0.1°C</td>
<td>300°C</td>
</tr>
</tbody>
</table>

## Test Equipment
- **Serial #:** 1085020  
- **Model #:** 744  
- **Manufacturer:** Fluke  
- **Calibration Date:** Jan 19/15

## Comments
- Terminals loose on both "red" leads

### Tested By:
- **Name:** Roger Heron  
- **Date:** 24/09/15  
- **Company:** XXX Inc.

### Accepted By:
- **Name:**  
- **Date:**  
- **Company:**  

Printed: 26/08/2015  
Retention Time = 7 years
### Calibration Test Report - Thermocouple

**Client:** Covanta  
**Date:** Sept 24/15  
**Location:** Durham-York  
**Contract #:**

---

#### INSTRUMENT DETAILS

- **Tag #:** STH-5228  
- **System:** 265R  
- **Manufacturer:** Temp Pro  
- **Description:** SH3 Outlet Temp  
- **Calibrated Range:** 0-600°C

<table>
<thead>
<tr>
<th>Continuity</th>
<th>Ground O.K.</th>
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<th>SS Tag</th>
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<tr>
<th>Temp Input</th>
<th>Actual Reading</th>
<th>Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FROM T/C</td>
<td>500.4°C</td>
<td>501.1°C</td>
</tr>
<tr>
<td>Test 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTPUT FROM 744</td>
<td>0°C / 30°C / 60°C</td>
<td>0.0°C / 299.9°C / 600.0°C</td>
</tr>
<tr>
<td>Test 3</td>
<td></td>
<td></td>
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#### TEST EQUIPMENT

- **Serial #:** 1085020  
- **Model #:** 744  
- **Calibration Date:** Jan 01/15  
- **Manufacturer:** Fluke

---

#### COMMENTS

---

**Tested By:**  
Name: [Signature:]

**Date:** Sept 24/15  
**Company:**

---

**Accepted By:**  
Name: [Signature:]

**Date:**  
**Company:**

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Printed: 26/08/2015  
Filed in:  
Retention Time = 7 years  
Page 1 of 1