

General Information or Other (PAR)

Event # 46449

<b>Rep Org:</b> ROSEMOUNT NUCLEAR	<b>Notification Date / Time:</b> 12/02/2010 20:15 (EST)		
<b>Supplier:</b> ROSEMOUNT NUCLEAR	<b>Event Date / Time:</b> 11/22/2010 (CST)		
	<b>Last Modification:</b> 12/02/2010		
<b>Region:</b> 3	<b>Docket #:</b>		
<b>City:</b> CHANHASSEN	<b>Agreement State:</b>		Yes
<b>County:</b>	<b>License #:</b>		
<b>State:</b> MN			
<b>NRC Notified by:</b> MARC BUMGARNER	<b>Notifications:</b>	WAYNE SCHMIDT	R1DO
<b>HQ Ops Officer:</b> JOE O'HARA		SCOTT SHAEFFER	R2DO
<b>Emergency Class:</b> NON EMERGENCY		MARK RING	R3DO
<b>10 CFR Section:</b>		DALE POWERS	R4DO
21.21	UNSPECIFIED PARAGRAPH	PART 21 GRP	

ANOLMALY DISCOVERED ON ROSEMOUNT MODEL 1152 DIFFERENTIAL PRESSURE TRANSMITTERS WITH OUTPUT CODE "L" 10-50 mA ELECTRONICS

The following was received via fax:

Rosemount Nuclear discovered an anomaly in Model 1152 differential pressure transmitters while troubleshooting a separate, unrelated issue. The anomaly is related to the pressure transmitters response during a overpressure condition. Normally, under a low side overpressure condition, the output will go off-scale and remain off scale for conditions less than 10 mA. Rosemount has discovered that some detectors may go off-scale and then return to on-scale between 10mA and 50 mA, rather than remain off scale under 10mA. This is caused by a change made to operational amplifier components in March 2001. Rosemount recommends all customers evaluate the safety impact of this anomaly on their plants. No field failures have been reported to date.

The following sites are affected: Browns Ferry, Brunswick, Cook, Dresden, Duane Arnold, Fermi, Fort Calhoun, Ginna, Hatch, Indian Point, Kewaunee, Millstone, Nine Mile Point, Oyster Creek, Palisades, Pilgrim, Quad Cities, Sequoyah, Vermont Yankee, and Watts Bar.

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JE19  
NRB

## Facsimile

No. of Pages: 33  
*Including cover page*

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**To:** NRC Operations Center      **Fax Number:** (301) 816-5151

**Company:**

**Date:** Thursday, December 2nd, 2010

**From:** Duyen Pham, Quality Manager      **Phone:** (952) 949-5363

**E-Mail:** [Duyen.Pham@Emerson.com](mailto:Duyen.Pham@Emerson.com)

**Subject:** Notification under 10 CFR Part 21 on certain Rosemount Model 1152 Differential Pressure Transmitters with output code "L" 10-50 mA electronics.

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Rosemount Nuclear Instruments, Inc. is submitting the attached notification as required by 10 CFR Part 21. Please contact me if you have any questions.

Sincerely,



Duyen Pham  
Quality Manager  
Rosemount Nuclear Instruments, Inc.

2 December 2010

U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
Attn: Document Control Desk

**Re: Notification under 10 CFR Part 21 on certain Rosemount Model 1152 Differential Pressure Transmitters with output code "L" 10-50 mA electronics.**

Pursuant to 10 CFR Part 21, section 21.21(b), Rosemount Nuclear Instruments, Inc. (RNII) is writing to inform you of an anomaly discovered with certain Model 1152 differential pressure transmitters with output code "L" 10-50 mA electronics. The Model 1152 transmitter measures pressure, flow and level in nuclear power stations. This letter addresses the potentially affected units shipped to customers and documents the details of the effect on transmitter output.

The discovered anomaly is related to the transmitter's response to a low side overpressure event. While a low side overpressure condition exists, the transmitter's output may return to the normal 10-50 mA operating range ("on-scale") rather than maintaining an output below 10 mA ("off-scale").

Rosemount Nuclear Instruments, Inc. does not have complete information relating to specific plant applications and therefore cannot determine the potential effects of the anomalous output condition on plant operation.

The potentially affected Model 1152 Series nuclear qualified differential pressure transmitters with output code "L" 10-50 mA electronics were shipped from RNII between March 2001 and present.

**1.0 Name and address of the individual providing the information:**

Mr. Marc D. Bumgarner  
Vice President & General Manager  
Rosemount Nuclear Instruments, Inc.  
8200 Market Boulevard  
Chanhassen, MN 55317

**2.0 Identification of items supplied:**

Model 1152 differential pressure transmitters (1152DP and 1152HP) with output code "L" 10-50 mA electronics. A total of 350 potentially affected units have been shipped to date. See the enclosed Attachment A for the list of transmitters shipped by plant site.

***Note: Model 1152 gage and absolute pressure transmitters (1152GP and 1152AP) with output code "L" 10-50 mA electronics are not affected by this notification. Additionally, no Model 1152 transmitters with output code "N" 4-20 mA electronics are affected by this notification.***

**3.0 Identification of firm supplying the item:**

Rosemount Nuclear Instruments, Inc.  
8200 Market Boulevard  
Chanhassen, MN 55317

**4.0 Nature of the failure and potential safety hazard:**

Normally, when the transmitter is subjected to an overpressure condition, the transmitter output will remain above 50 mA during a high side overpressure condition or will remain below 10 mA during a low side over pressure condition. Certain Model 1152 differential pressure transmitters with output code "L" 10-50 mA electronics, may exhibit an anomaly.

Under a low side overpressure condition, which exceeds the upper range pressure value, the output will go off-scale and may return to the on-scale 10-50 mA range, rather than remaining off-scale below 10 mA. This is caused by a change made to the operational amplifier components in March 2001.

These operational amplifiers draw more current than the previous operational amplifiers. In addition, during an overpressure event, the current draw of the oscillator varies depending upon the transistor gain of the circuit. The combination of the additional current draw from the operational amplifiers and the oscillator may cause output to return on-scale.

Since only a low side overpressure condition will result in this anomaly, only differential pressure transmitters are affected. The low side overpressure phenomena will not occur for applied low side pressures less than 100% of the upper range pressure value.

No field failures have been reported to date. The anomaly was identified during engineering testing to evaluate a separate, unrelated transistor component change.

This potential substantial safety hazard was identified on 11/22/10. Rosemount Nuclear Instruments, Inc. does not have sufficient information to determine the safety impact related to the potentially anomalous output in plant applications. As a result, a notification about the potential substantial safety hazard is being made in accordance with 10 CFR Part 21 to customers that purchased a Model 1152 pressure transmitter with output code "L" 10-50 mA electronics from the potentially affected population.

**5.0 The corrective action which is taken, the name of the individual or organization responsible for that action, and the length of time taken to complete that action:**

The planned corrective action is to update Qualification Report D8800058 to clearly describe the low side overpressure phenomena.

Completion: February 2011

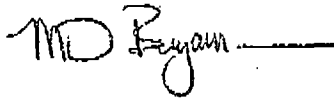
Mr. Marc Bumgarner, VP&GM of Rosemount Nuclear Instruments, Inc. is responsible for any further action related to this issue.

**6.0 Any advice related to the potential failure of the item:**

Rosemount Nuclear Instruments, Inc. recommends that users review the application where the Model 1152 differential pressure transmitters with output code "L" 10-50 mA electronics are used to determine any safety considerations in the operation of the plant.

Rosemount Nuclear Instruments, Inc. is committed to the nuclear industry and remains dedicated to the supply of high quality products to our customers. If you have any questions, or require additional information related to this issue, please contact: Mike Dougherty (208) 865-1112, Gerard Hanson (952) 949-5233, Bob Cleveland (952) 949-5206, or Matt Doyle (952) 949-5204.

Sincerely,

A handwritten signature in black ink, appearing to read "MD Bumgamer", followed by a horizontal line.

Marc D. Bumgamer  
Vice President & General Manager  
Rosemount Nuclear Instruments, Inc.

Enc.: Attachment A – List of Effected Transmitters by Plant Site

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**AMERGEN ENERGY CO LLC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
852738	0769061 001	1152DP5L22T1805	0521149	3-May-01	OYSTER CREEK NGS
852738	0769061 001	1152DP5L22T1805	0521150	3-May-01	OYSTER CREEK NGS

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**AMERICAN ELECTRIC POWER CO INC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
2001347	01525044	1152DP3L92T1805PM	0535770	15-Oct-07	COOK NUCLEAR PLANT
2001347	01525044	1152DP3L92T1805PM	0535771	15-Oct-07	COOK NUCLEAR PLANT
2007173	01524069 REV001	01152-0125-0002	n/a	23-Oct-07	COOK NUCLEAR PLANT
2008175	01525406 REV001	1152DP4L92T1805PM	0535897	24-Oct-07	COOK NUCLEAR PLANT
2008175	01525406 REV001	1152DP4L92T1805PM	0535898	24-Oct-07	COOK NUCLEAR PLANT
2294174	01532930 REV 001	1152DP6L92T1805PM	0538773	25-Feb-09	COOK NUCLEAR PLANT
2340677	01535211 REV 004	1152DP4L92T1805PM	0539161	18-May-09	COOK NUCLEAR PLANT
2340677	01535211 REV 004	1152DP4L92T1805PM	0539162	18-May-09	COOK NUCLEAR PLANT
2473806	01540508	1152DP3L92T1809PM	0540728	1-Feb-10	COOK NUCLEAR PLANT
2531835	01542480	1152DP4L92T1805PM	0541291	30-Apr-10	COOK NUCLEAR PLANT
2531835	01542480	1152DP4L92T1805PM	0541292	30-Apr-10	COOK NUCLEAR PLANT

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**

**AMERICAN ELECTRIC POWER**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
963297	NU04-0000019612	1152DP3L92T1805PM	0522641	5-Dec-01	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522975	6-Feb-02	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522976	6-Feb-02	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522977	6-Feb-02	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522978	6-Feb-02	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522979	6-Feb-02	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522980	6-Feb-02	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522981	6-Feb-02	COOK NUCLEAR PLANT
963297	NU04-0000019612	1152DP3L92T1805PM	0522982	6-Feb-02	COOK NUCLEAR PLANT
1155981	190-0000028327	1152DP3L92T1805PM	0525315	11-Mar-03	COOK NUCLEAR PLANT
1155981	190-0000028327	1152DP3L92T1805PM	0525316	11-Mar-03	COOK NUCLEAR PLANT
1343880	190-0000036566	1152DP3L92T1805PM	0527596	15-Apr-04	COOK NUCLEAR PLANT
1343880	190-0000036566	1152DP3L92T1805PM	0527597	15-Apr-04	COOK NUCLEAR PLANT
1343880	190-0000036566	1152DP3L92T1805PM	0527743	28-Apr-04	COOK NUCLEAR PLANT



**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**CONSTELLATION NUCLEAR**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1842448	7704839	1152DP3L22T1805PM	0534156	15-Feb-07	NINE MILE POINT U2 WHSE
1842448	7704839	1152DP3L22T1805PM	0534157	15-Feb-07	NINE MILE POINT U2 WHSE
1842448	7704839	1152DP3L22T1805PM	0534158	15-Feb-07	NINE MILE POINT U2 WHSE
2363525	7715293	1152DP5L22T1805PB	0539448	17-Jun-10	NINE MILE POINT U2 WHSE
2363525	7715293	1152DP5L22T1805PB	0539449	17-Jun-10	NINE MILE POINT U2 WHSE
2363525	7715293	1152DP5L22T1805PB	0539450	17-Jun-10	NINE MILE POINT U2 WHSE

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**CONSTELLATION NUCLEAR**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1668018	6600358	1152DP5L92PMT1805	0532183	8-May-06	R.E. GINNA NUCLEAR POWER PLANT
1668018	6600358	1152DP5L92PMT1805	0532184	8-May-06	R.E. GINNA NUCLEAR POWER PLANT
1668018	6600358	1152DP5L92PMT1805	0532185	8-May-06	R.E. GINNA NUCLEAR POWER PLANT
1865775	6602497 REV 1	1152HP4L92T1805PM	0534284	13-Mar-07	R.E. GINNA NUCLEAR POWER PLANT
1865775	6602497 REV 1	1152HP5L92T1805PM	0534282	13-Mar-07	R.E. GINNA NUCLEAR POWER PLANT

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**DETROIT EDISON CO**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1737851	NM-416383	1152DP8L22T1805PB	0533018	29-Aug-06	FERMI 2

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**DOMINION ENERGY KEWAUNEE INC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1747213	45450382	1152HP5L22T1805PM	0533012	29-Aug-06	KEWAUNEE
1747213	45450382	1152HP5L22T1805PM	0533013	29-Aug-06	KEWAUNEE
1976726	45536055	1152DP3L22T1805PM	0535662	25-Sep-07	KEWAUNEE
2019990	45551834	1152DP3L92T1809PB	0536155	22-Jan-08	KEWAUNEE
2019990	45551834	1152DP3L92T1809PB	0536156	22-Jan-08	KEWAUNEE
2019990	45551834	1152DP3L92T1809PB	0536157	22-Jan-08	KEWAUNEE
2019990	45551834	1152DP3L92T1809PB	0536158	22-Jan-08	KEWAUNEE
2019990	45551834	1152DP3L92T1809PB	0536159	22-Jan-08	KEWAUNEE
2078583	45576453	1152DP3L22T1805PM	0536848	29-May-08	KEWAUNEE
2134805	45598265	1152DP4L22T1805PM	0536995	10-Jun-08	KEWAUNEE
2259992	45641534	1152DP4L22T1808PM	0538454	17-Feb-09	KEWAUNEE
2259992	45641534	1152DP4L22T1808PM	0538455	17-Feb-09	KEWAUNEE

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**

**DOMINION GENERATION**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1703630	45432891	1152DP5L22T1805PB	0532708	27-Jun-06	MILLSTONE
2072198	45573836	1152DP5L22T1805PM	0536307	21-Feb-08	MILLSTONE
2072198	45573836	1152DP5L22T1805PM	0536308	21-Feb-08	MILLSTONE

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**ENTERGY CORP**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1153451	PSC3-10127	1152DP5L22T1805PB	0525233	10-Mar-08	UNIT 500-510 CORPORATE PARK

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**ENTERGY CORP INDIAN POINT**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1246352	4500525907	1152DP5L22T1805PM	0526534	24-Sep-03	INDIAN POINT NPP
1246352	4500525907	1152DP5L22T1805PM	0526535	24-Sep-03	INDIAN POINT NPP

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.  
 ENTERGY CORP**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
823007	PS01-10272	1152DP5L22T1805PB	0520723	5-Mar-01	PILGRIM STATION
823007	PS01-10272	1152DP5L22T1805PB	0520736	5-Mar-01	PILGRIM STATION
890721	PS01-11182	1152DP5L22T1805PB	0521685	10-Aug-01	PILGRIM STATION
2436383	10246051 REV 003	1152DP4L22T1805PM	0540248	23-Nov-09	PILGRIM STATION
2436383	10246051 REV 003	1152DP4L22T1805PM	0540282	23-Nov-09	PILGRIM STATION



**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**

**ENTERGY CORP**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1061163	VY014098	1152DP4L22T1805PB	524083	12-Aug-02	VERMONT YANKEE LLC
1141227	VY015464	1152DP7L22T1805PB	0525066	21-Jan-03	VERMONT YANKEE LLC
1141227	VY015464	1152DP7L22T1805PB	0525067	21-Jan-03	VERMONT YANKEE LLC
1442015	VY019030	1152DP7L22T1805PB	0528980	9-Dec-04	VERMONT YANKEE LLC
1724739	VY021338	1152DP4L22T1805PM	0532573	28-Jun-06	VERMONT YANKEE LLC

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EXELON GENERATION CO LLC

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1350449	00072991 REV: 002	1152DP6L22T1805PB	0528138	27-Jul-04	DRESDEN WAREHOUSE
1350449	00072991 REV: 002	1152DP6L22T1805PB	0528139	27-Jul-04	DRESDEN WAREHOUSE
2021233	00076959 REL00171 REV001	1152DP4L22PMT1809	0536413	13-Mar-08	DRESDEN WAREHOUSE
2109456	00076959 REL00192 REV002	1152DP4L22PMT1809	0536599	19-May-08	DRESDEN WAREHOUSE

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**EXELON GENERATION CO LLC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1368427	80 012536	1152DP5L22T1805	0528079	7-Jul-04	OYSTER CREEK NGS
2571401	80 035843 REV 1	1152DP6L22T1805PB	0541553	1-Jul-10	OYSTER CREEK NGS
2571401	80 035843 REV 1	1152DP6L22T1805PB	0541554	1-Jul-10	OYSTER CREEK NGS
2571401	80 035843 REV 1	1152DP6L22T1805PB	0541555	1-Jul-10	OYSTER CREEK NGS
2571401	80 035843 REV 1	1152DP6L22T1805PB	0541556	1-Jul-10	OYSTER CREEK NGS
2571401	80 035843 REV 1	1152DP6L22T1805PB	0541557	1-Jul-10	OYSTER CREEK NGS

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EXELON GENERATION CO LLC

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
833894	00022536 001	1152DP5L22T1805PB	0520890	3-Apr-01	QUAD CITIES NUCLEAR STA
833894	00022536 001	1152DP5L22T1805PB	0521085	1-May-01	QUAD CITIES NUCLEAR STA
1023726	00043099	1152DP5L22T1805PB	523567	20-May-02	QUAD CITIES NUCLEAR STA
1041507	00044883 REV 001	1152DP5L22T1805PB	0523852	8-Jul-02	QUAD CITIES NUCLEAR STA
1352461	00073146	1152DP6L22T1805PB	0527810	3-Jun-04	QUAD CITIES NUCLEAR STA
1476178	00076959 REV 001 RLSE 00022	1152DP6L22T1805PB	0529303	15-Feb-05	QUAD CITIES NUCLEAR STA
1476178	00076959 REV 001 RLSE 00022	1152DP6L22T1805PB	0529304	15-Feb-05	QUAD CITIES NUCLEAR STA
1476178	00076959 REV 001 RLSE 00022	1152DP6L22T1805PB	0529305	15-Feb-05	QUAD CITIES NUCLEAR STA
1476178	00076959 REV 001 RLSE 00022	1152DP6L22T1805PB	0529713	5-Apr-05	QUAD CITIES NUCLEAR STA
1496622	00076959 RLSE 00026	1152DP6L22T1805PB	0529714	5-Apr-05	QUAD CITIES NUCLEAR STA
1506508	00076959 REV 001 RLSE 00028	1152DP6L22T1805PB	0529811	2-May-05	QUAD CITIES NUCLEAR STA
1506508	00076959 REV 001 RLSE 00028	1152DP6L22T1805PB	0529812	2-May-05	QUAD CITIES NUCLEAR STA
1506508	00076959 REV 001 RLSE 00028	1152DP6L22T1805PB	0529813	2-May-05	QUAD CITIES NUCLEAR STA
1706116	00076959 REV 001 REL 00079	1152DP6L22T1805PB	0532572	27-Jun-06	QUAD CITIES NUCLEAR STA
2496054	00076959 REL 00305	1152DP6L22T1805PB	0541093	11-Mar-10	QUAD CITIES NUCLEAR STA

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**

**FPL ENERGY DUANE ARNOLD LLC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
2090545	K120474 REV 2	01132-0123-0002	n/a	17-Mar-08	DUANE ARNOLD LLC

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**GEORGIA POWER CO**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1601988	6065532	1152DP3L22T1805PB	0530781	13-Oct-05	HATCH ELECTRIC GENERATING PLANT
1601988	6065532	1152DP3L22T1805PB	0530782	13-Oct-05	HATCH ELECTRIC GENERATING PLANT

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**INDIANA MICHIGAN POWER CO**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1536238	190-0000043153 REVISION 1	1152DP8L92T1805PM	0530050	21-Jun-05	
2271447	01528587	1152DP4L92T1805PM	0538515	16-Jan-09	
2271447	01528587	1152DP4L92T1805PM	0538516	16-Jan-09	

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**NEXTERA ENERGY DUANE ARNOLD LLC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
2478707	K131773	1152DP6L22PMT1805	0541087	11-Mar-10	DUANE ARNOLD LLC
2543545	K133222	1152HP7L22T1805PB	541359	15-Jul-10	DUANE ARNOLD LLC



**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**NUCLEAR MANAGEMENT CO LLC**

<b>Sales Order</b>	<b>Purchase Order Number</b>	<b>Model Number</b>	<b>Serial Number</b>	<b>Ship Date</b>	<b>Site</b>
1073984	P008115	1152DP5L92T1805PM	0524300	20-Sep-02	PALISADES GENERATING PLANT
1796935	00004475 REV 001	1152DP5L92T1805PM	0533545	20-Oct-06	PALISADES GENERATING PLANT

**ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.**  
**OMAHA PUBLIC POWER DISTRICT**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1633668	00088746	1152DP5L92T1805PM	0531671	13-Mar-06	FORT CALHOUN STA
1633668	00088746	1152DP5L92T1805PM	0531672	13-Mar-06	FORT CALHOUN STA
1696108	00092470	1152DP4L92T1805PM	0532503	19-Jun-06	FORT CALHOUN STA
1983354	00111744	1152DP5L92T1805PM	0535801	18-Oct-07	FORT CALHOUN STA
2445414	00141216 REV 001	1152DP3L92T1805PM	0540276	13-Nov-09	FORT CALHOUN STA
2445414	00141216 REV 001	1152DP3L92T1805PM	0540277	13-Nov-09	FORT CALHOUN STA
2445414	00141216 REV 001	1152DP3L92T1805PM	0540278	30-Nov-09	FORT CALHOUN STA
2445414	00141216 REV 001	1152DP3L92T1805PM	0540279	30-Nov-09	FORT CALHOUN STA
2445414	00141216 REV 001	1152DP3L92T1805PM	0540280	30-Nov-09	FORT CALHOUN STA
2445414	00141216 REV 001	1152DP3L92T1805PM	0540281	30-Nov-09	FORT CALHOUN STA

ATTACHMENT: 10 CFR Part 21 Notification - 02 December 2010.

ONTARIO POWER GENERATION INC

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
842842	000 75783	1152DP4L22PMT1854	0521670	26-Jul-01	PICKERING NUCLEAR
842842	000 75783	1152DP4L22PMT1854	0521671	26-Jul-01	PICKERING NUCLEAR
842842	000 75783	1152DP4L22PMT1854	0521672	26-Jul-01	PICKERING NUCLEAR
842842	000 75783	1152DP4L22PMT1854	0521673	26-Jul-01	PICKERING NUCLEAR
842842	000 75783	1152DP4L22PMT1854	0521674	26-Jul-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521814	23-Aug-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521815	23-Aug-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521816	23-Aug-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521817	23-Aug-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521874	23-Aug-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521875	23-Aug-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521882	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521883	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521884	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521885	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521886	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521887	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521888	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521889	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521906	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521907	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521908	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521909	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521920	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521921	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521922	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521923	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521924	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521925	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521926	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP4L22PMT1854	0521927	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521870	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521871	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521872	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521873	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521876	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521877	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521878	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521879	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521880	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521898	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521899	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521900	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521901	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521902	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521903	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521904	19-Sep-01	PICKERING NUCLEAR
846409	00068334	1152DP5L22PMT1854	0521905	19-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522352	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522353	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522354	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522355	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522356	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522357	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522358	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522359	26-Sep-01	PICKERING NUCLEAR
861958	00068334	1152DP4L22PMT1854	0522376	26-Sep-01	PICKERING NUCLEAR





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**PROGRESS ENERGY CAROLINAS INC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
2079421	00364861 REV 001	1152DP4L22T1805PB	0536483	21-Mar-08	BRUNSWICK PLANT

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**SNC LAVALIN NUCLEAR INC**

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535753	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535950	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535951	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535952	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535953	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535954	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535955	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535963	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535964	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535965	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535966	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535967	6-Dec-07	BRUCE
1976072	017182-0068-12-376-60430-48PN	1152DP4L22T1854PM	0535968	6-Dec-07	BRUCE

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**TRENTEC INC**

<b>Sales Order</b>	<b>Purchase Order Number</b>	<b>Model Number</b>	<b>Serial Number</b>	<b>Ship Date</b>	<b>Site</b>
2218332	T849401	1152DP6L22T1805PB	0537854	16-Oct-08	
2218332	T849401	1152DP6L22T1805PB	0537855	16-Oct-08	



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TVA

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
1306486	00000151 REV 001 RLSE 00093	1152DP4L22T1805PB	0527500	23-Mar-04	BROWNS FERRY NUCLEAR PLANT
1306486	00000151 REV 001 RLSE 00093	1152DP4L22T1805PB	0527501	23-Mar-04	BROWNS FERRY NUCLEAR PLANT
1329745	00000151 RLSE 00103	1152DP6L22T1805PB	0528031	1-Jul-04	BROWNS FERRY NUCLEAR PLANT
1329745	00000151 RLSE 00103	1152DP6L22T1805PB	0528032	1-Jul-04	BROWNS FERRY NUCLEAR PLANT
1353618	00000151 RLSE 00112	1152DP5L22T1805PB	0527806	3-Jun-04	BROWNS FERRY NUCLEAR PLANT
1353618	00000151 RLSE 00112	1152DP5L22T1805PB	0527807	3-Jun-04	BROWNS FERRY NUCLEAR PLANT
1353618	00000151 RLSE 00112	1152DP5L22T1805PB	0527808	3-Jun-04	BROWNS FERRY NUCLEAR PLANT
1353618	00000151 RLSE 00112	1152DP5L22T1805PB	0527809	3-Jun-04	BROWNS FERRY NUCLEAR PLANT
1417991	00000151 RLSE 00131	1152DP5L22T1805PB	0528781	18-Oct-04	BROWNS FERRY NUCLEAR PLANT
1479608	00000151 REV 001 RLSE 00154	1152DP6L22T1805PB	0529422	24-Feb-05	BROWNS FERRY NUCLEAR PLANT
1479608	00000151 REV 001 RLSE 00154	1152DP6L22T1805PB	0529423	24-Feb-05	BROWNS FERRY NUCLEAR PLANT
1718560	00000151 REL 00210	1152DP6L22T1805PB	0532504	25-Jun-06	BROWNS FERRY NUCLEAR PLANT
1784890	00000151 REL 00228	1152DP3L22T1805PB	0533410	29-Sep-06	BROWNS FERRY NUCLEAR PLANT
1015556	00000151 RELEASE 00016	1152HP5L92T1805PB	0523511	29-Apr-02	C/O CHICKAMAUGA PSC/WATTS BAR NUC PLT
1117602	00000151 REV 003 RLSE 00035	1152DP4L92T1809PB	0525270	5-Mar-03	C/O CHICKAMAUGA PSC/WATTS BAR NUC PLT
1117602	00000151 REV 003 RLSE 00035	1152DP4L92T1809PB	0525271	5-Mar-03	C/O CHICKAMAUGA PSC/WATTS BAR NUC PLT
1702581	00000151 REV 001 REL 00206	1152DP4L92T1809PB	0532170	3-May-06	SEQUOYAH NUCLEAR PLANT
1218889	00000151 RLSE 00059	1152DP6L92T1805PB	0526521	15-Sep-03	WATTS BAR NUCLEAR PLANT
1218889	00000151 RLSE 00059	1152DP6L92T1805PB	0526522	15-Sep-03	WATTS BAR NUCLEAR PLANT
1218889	00000151 RLSE 00059	1152DP6L92T1805PB	0526523	15-Sep-03	WATTS BAR NUCLEAR PLANT
1218889	00000151 RLSE 00059	1152DP6L92T1805PB	0526524	15-Sep-03	WATTS BAR NUCLEAR PLANT
1218889	00000151 RLSE 00059	1152DP6L92T1805PB	0526525	15-Sep-03	WATTS BAR NUCLEAR PLANT
1441958	00000151 RLSE 00136	1152DP3L92T1805PB	0529037	3-Jan-05	WATTS BAR NUCLEAR PLANT
1476317	00000151 RLSE 00153	1152HP5L92T1805PB	0529300	15-Feb-05	WATTS BAR NUCLEAR PLANT
1948529	00000151 REV 1 REL 00272	1152DP4L92T1805PB	0535790	18-Oct-07	WATTS BAR NUCLEAR PLANT
1948529	00000151 REV 1 REL 00272	1152DP4L92T1805PB	0535791	18-Oct-07	WATTS BAR NUCLEAR PLANT
1948529	00000151 REV 1 REL 00272	1152DP4L92T1805PB	0535792	18-Oct-07	WATTS BAR NUCLEAR PLANT
1948529	00000151 REV 1 REL 00272	1152DP5L92T1805PB	0535789	18-Oct-07	WATTS BAR NUCLEAR PLANT

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U SHUN ENTERPRISE CO LTD

Sales Order	Purchase Order Number	Model Number	Serial Number	Ship Date	Site
2046162	F-167-96 (M3509600668M)	1152DP6L22T1805PB	0536272	27-Feb-08	
2046162	F-167-96 (M3509600668M)	1152DP6L22T1805PB	0536273	27-Feb-08	
2046162	F-167-96 (M3509600668M)	1152DP6L22T1805PB	0536274	27-Feb-08	
2046162	F-167-96 (M3509600668M)	1152DP6L22T1805PB	0536275	27-Feb-08	
2046162	F-167-96 (M3509600668M)	1152DP6L22T1805PB	0536276	27-Feb-08	
2046162	F-167-96 (M3509600668M)	1152DP6L22T1805PB	0536277	27-Feb-08	
2046162	F-167-96 (M3509600668M)	1152DP6L22T1805PB	0536278	27-Feb-08	
2139041	F-186-97 (M3509700245A)	1152DP6L22T1805PB	0537372	22-Aug-08	
2139041	F-186-97 (M3509700245A)	1152DP6L22T1805PB	0537373	22-Aug-08	
2139041	F-186-97 (M3509700245A)	1152DP6L22T1805PB	0537374	22-Aug-08	
2139041	F-186-97 (M3509700245A)	1152DP6L22T1805PB	0537375	22-Aug-08	
2139041	F-186-97 (M3509700245A)	1152DP6L22T1805PB	0537376	22-Aug-08	
2139041	F-186-97 (M3509700245A)	1152DP6L22T1805PB	0537377	22-Aug-08	