



## Department of Energy

Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208-3621

FREEDOM OF INFORMATION ACT PROGRAM

January 30, 2023

In reply refer to: FOIA #BPA-2022-00888-F

**SENT VIA EMAIL ONLY TO:** [Kelsey.Shaddy@doj.state.or.us](mailto:Kelsey.Shaddy@doj.state.or.us); [Marcus.Hull@doj.state.or.us](mailto:Marcus.Hull@doj.state.or.us)

Marcus Hull, Senior Assistant Attorney General  
Kelsey Shaddy, Senior Paralegal  
Oregon Department of Justice  
1162 Court Street NE  
Salem, OR 97301-4096

Dear Colleagues,

This communication concerns your agency records request submitted to the Bonneville Power Administration (BPA), made via the Freedom of Information Act, 5 U.S.C. § 552 (FOIA) and formally acknowledged on June 13, 2022.

### Request

“In ... [regards to] ... the fire near Pike Lane in Tillamook County, Oregon, on September 7, 2020 at approximately 11:00 pm, [...] BPA identified 2 targets along the BPA Tillamook line – the B-C phase, which was 6.05 miles from the BPA station and B-C and ground, which was 6.2 miles away. [We seek] ... information regarding the function of the reclosers involved and whether the switch at the Lewis and Clark substation was closed when the line was subsequently tested.”

### Clarifications

On June 3, 2022, via email with the agency, you clarified your request as follows: “[In regards to] the transmission line identified by Pacific Power as the Sugarloaf transmission line protected by CB2A8 at Pacific's Lewis and Clark substation and CB1093 at the BPA Tillamook substation [,] BPA reported targets identified as recorded by device SEL-321 at 22:50 on the Sugarloaf transmission line. We request all data associated with the targets including phase to phase and phase to ground information. We also request estimated distance from substation. Also, any other targets and related data recorded by SEL-321 on the Sugarloaf transmission line protected by CB1093 for September 7, 2020.”

On June 4, 2022, via email exchanges with the agency, and after reviewing BPA's restatement of your request clarification, you further clarified your request as follows: "For the date of September 7, 2020; for the transmission line identified by Pacific Power as the Sugarloaf transmission line, protected by CB2A8 at Pacific Power's Lewis and Clark Substation and CB1093 at the BPA's Tillamook substation; for targets on the line recorded by device SEL-321 at 22:50 hours, [we] request: Records of all data associated with the recorded targets, including phase-to-phase and phase-to-ground information[; and] records of the estimated distance of the recorded targets from BPA's Tillamook substation[; and] records of all data associated with any additional targets recorded by SEL-321 on the Sugarloaf transmission line protected by CB1093."

### **Response**

The agency collected 24 pages of responsive records from knowledgeable agency personnel in Transmission Real Time Operations, and the Chemawa Substation Operations office. Those 24 pages accompany this communication, released in full.

### **Fees**

There are no fees associated with processing your FOIA request.

### **Certification**

Pursuant to 10 C.F.R. § 1004.7(b)(2), I am the individual responsible for the records search and information release described above. Your FOIA request BPA-2022-00888-F is now closed with the responsive agency information provided.

### **Appeal**

Note that the records release certified above is final. Pursuant to 10 C.F.R. § 1004.8, you may appeal the adequacy of the records search, and the completeness of this final records release, within 90 calendar days from the date of this communication. Appeals should be addressed to:

Director, Office of Hearings and Appeals  
HG-1, L'Enfant Plaza  
U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585-1615

The written appeal, including the envelope, must clearly indicate that a FOIA appeal is being made. You may also submit your appeal by e-mail to [OHA.filings@hq.doe.gov](mailto:OHA.filings@hq.doe.gov), including the phrase "Freedom of Information Appeal" in the subject line. (The Office of Hearings and Appeals prefers to receive appeals by email.) The appeal must contain all the elements required by 10 C.F.R. § 1004.8, including a copy of the determination letter. Thereafter, judicial review will be available to you in the Federal District Court either (1) in the district where you reside, (2) where you have your principal place of business, (3) where DOE's records are situated, or (4) in the District of Columbia.

Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows:

Office of Government Information Services  
National Archives and Records Administration  
8601 Adelphi Road-OGIS  
College Park, Maryland 20740-6001  
E-mail: [ogis@nara.gov](mailto:ogis@nara.gov)  
Phone: 202-741-5770  
Toll-free: 1-877-684-6448  
Fax: 202-741-5769

Questions about this communication may be directed to the FOIA Public Liaison James King at [jjking@bpa.gov](mailto:jjking@bpa.gov) or 503-230-7621. Thank you for your interest in the Bonneville Power Administration.

Sincerely,

Candice D. Palen  
Freedom of Information/Privacy Act Officer

Responsive agency information accompanies this communication.

2250 SEP 07 2020 MCC

2250 SEP 07 2020 OS-IS	AUTOMATIC:WEATHER				MUNRO RECORD #1399376
RELAY OPERATION APPEARS NORMAL					
RAS OPERATION APPEARS NOT APPLICABLE					
	O/S	I/S	CAUSE	RSYS	MWL
TILLAMOOK-GARIBALDI SECTION OF	2250 SEP 07 2020		WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
GARIBALDI TAP TO TILLAMOOK-PACW ASTORIA	2250 SEP 07 2020		WEATHER	BPA	
NO 1 115KV LINE					
GARIBALDI-MOHLER SECTION OF	2250 SEP 07 2020		WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
MOHLER-NEHALEM SECTION OF TILLAMOOK-PACW	2250 SEP 07 2020		WEATHER	BPA	
ASTORIA NO 1 115KV LINE					
NEHALEM-CANNON BEACH SECTION OF	2250 SEP 07 2020		WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
CANNON BEACH-SEASIDE SECTION OF	2250 SEP 07 2020		WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
SEASIDE-WARRENTON SECTION OF	2250 SEP 07 2020		WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
WARRENTON-PACW ASTORIA SECTION OF	2250 SEP 07 2020		WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
GARIBALDI: TILLAMOOK PUD 115KV FEEDER 1	2250 SEP 07 2020		WEATHER	BPA	UNKN
BY PACIFICORP (PACW)					
MOHLER: TILLAMOOK PUD 115KV FEEDER 1 BY	2250 SEP 07 2020		WEATHER	BPA	UNKN
PACIFICORP (PACW)					
NECANICUM: WEST OREGON ELEC 12.5KV	2250 SEP 07 2020		WEATHER	BPA	UNKN
FEEDER 1 BY PACIFICORP (PACW)					
NEHALEM: TILLAMOOK PUD 115KV FEEDER 1 BY	2250 SEP 07 2020		WEATHER	BPA	UNKN
PACIFICORP (PACW)					
COMMENTS					
2302 SEP 07 2020			PACW RELAY DATA INDICATES THAT THE FAULT IS BETWEEN NEHALEM AND NECANICUM		
			JUNCTION. PACW WILL CONFIRM AND ADVISE.		
2322 SEP 07 2020			TILLAMOOK PUD REPORTS MULTIPLE FIRES BETWEEN TILLAMOOK AND GARIBALDI TAP.		
2346 SEP 07 2020			RC WEST NOTIFIED.		

0005 SEP 08 2020 MCC

0005 SEP 08 2020 OS-IS	AUTOMATIC:WEATHER				MUNRO RECORD #1399376
RELAY OPERATION APPEARS NORMAL					
RAS OPERATION APPEARS NOT APPLICABLE					
	O/S	I/S	CAUSE	RSYS	MWL
TILLAMOOK-GARIBALDI SECTION OF	2250 SEP 07 2020		WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
GARIBALDI TAP TO TILLAMOOK-PACW ASTORIA	2250 SEP 07 2020		WEATHER	BPA	
NO 1 115KV LINE					
GARIBALDI-MOHLER SECTION OF	2250 SEP 07 2020	0955 SEP 08 2020	WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
MOHLER-NEHALEM SECTION OF TILLAMOOK-PACW	2250 SEP 07 2020	0955 SEP 08 2020	WEATHER	BPA	
ASTORIA NO 1 115KV LINE					
NEHALEM-CANNON BEACH SECTION OF	2250 SEP 07 2020	0955 SEP 08 2020	WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
CANNON BEACH-SEASIDE SECTION OF	2250 SEP 07 2020	0955 SEP 08 2020	WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
SEASIDE-WARRENTON SECTION OF	2250 SEP 07 2020	0116 SEP 08 2020	WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
WARRENTON-PACW ASTORIA SECTION OF	2250 SEP 07 2020	0116 SEP 08 2020	WEATHER	BPA	
TILLAMOOK-PACW ASTORIA NO 1 115KV LINE					
GARIBALDI: TILLAMOOK PUD 115KV FEEDER 1	2250 SEP 07 2020		WEATHER	BPA	UNKN
BY PACIFICORP (PACW)					
MOHLER: TILLAMOOK PUD 115KV FEEDER 1 BY	2250 SEP 07 2020	0955 SEP 08 2020	WEATHER	BPA	UNKN
PACIFICORP (PACW)					
NECANICUM: WEST OREGON ELEC 12.5KV	2250 SEP 07 2020	0955 SEP 08 2020	WEATHER	BPA	UNKN
FEEDER 1 BY PACIFICORP (PACW)					
NEHALEM: TILLAMOOK PUD 115KV FEEDER 1 BY	2250 SEP 07 2020	0955 SEP 08 2020	WEATHER	BPA	UNKN
PACIFICORP (PACW)					
COMMENTS					
0005 SEP 08 2020			TILLAMOOK PUD REPORTS THAT A TREE IS ACROSS ALL THREE PHASES AND THAT CONDUCTOR		
			IS ON THE GROUND.		

**From:** [OpInfo](#)  
**To:** [Wilkinson,Paul H \(BPA\) - TFLD-CHEMAWA](#); [Huynh,Jeff D \(BPA\) - TFVD-LONGVIEW](#); [Powell,Dennis J \(BPA\) - TFLC-CHEMAWA](#); [Hamel,Michael R \(BPA\) - TFOB-SHELTON](#); [Black,Fredrick B \(BPA\) - TFLB-MARION](#); [Butler,Karin A \(BPA\) - TFLD-CHEMAWA](#); [Murphy,Sean David \(BPA\) - TFLD-CHEMAWA](#)  
**Subject:** production: DIR Salem District  
**Date:** Tuesday, September 8, 2020 6:55:29 AM

The information contained herein is transmission system information subject to Bonneville Power Administration's Standards of Conduct.

### SALEM Daily Interruptions Report

Sep 7 2020 05:00 through Sep 8 2020 04:59

#### Customer Service Interruptions

Out Datetime	In Datetime	Name	Duration (minutes)	Outage Type	Cause	Responsible System	MW Intrpt	OPS SPC Headquarter	O&M District	Control Center	Outage ID
09/08/2020 04:27	09/08/2020 04:27	Beaver TLP: Tillamook PUD 115kV Feeder 1	0	Auto	Weather	BPA	Unknown	CHE	SAL	Munro	215863
09/08/2020 04:27	09/08/2020 04:27	Hebo: Tillamook PUD 115kV Feeder 1	0	Auto	Weather	BPA	Unknown	CHE	SAL	Munro	215864
09/08/2020 04:27	09/08/2020 04:27	Nestucca: Tillamook PUD 115kV Feeder 1	0	Auto	Weather	BPA	Unknown	CHE	SAL	Munro	215865
09/08/2020 01:03	09/08/2020 01:03	Salem: PacifiCorp (PACW) 115kV Feeder 1	0	Auto	Weather	BPA	Unknown	CHE	SAL	Munro	215852
09/07/2020 22:50		Garibaldi: Tillamook PUD 115kV Feeder 1 by PacifiCorp (PACW)	still out	Auto	Weather	BPA	Unknown	CHE	SAL	Munro	215845
09/07/2020 22:50		Mohler: Tillamook PUD 115kV Feeder 1 by PacifiCorp (PACW)	still out	Auto	Weather	BPA	Unknown	CHE	SAL	Munro	215846
09/07/2020 22:50		Necanicum: West Oregon Elec 12.5kV Feeder 1 by PacifiCorp (PACW)	still out	Auto	Weather	BPA	Unknown	CHE	SAL	Munro	215847
09/07/2020 22:50		Nehalem: Tillamook PUD 115kV Feeder 1 by PacifiCorp (PACW)	still out	Auto	Weather	BPA	Unknown		SAL	Munro	215848
09/07/2020 20:55	09/07/2020 20:55	South Fork TLP: Tillamook PUD 115kV Feeder 1	0	Auto	Wind	BPA	Unknown	CHE	SAL	Munro	215833
09/07/2020 20:55	09/07/2020 20:55	Thatcher Junction: Forest Grove OR 115kV Feeder 1	0	Auto	Wind	BPA	Unknown	CHE	SAL	Munro	215834
09/07/2020 20:55	09/07/2020 20:55	Timber: West Oregon Elec 34.5kV Feeder 1	0	Auto	Wind	BPA	Unknown	CHE	SAL	Munro	215835
09/07/2020 19:52	09/07/2020 19:52	Chemawa: Portland Gen Elec 57kV Feeder 2	0	Auto	Wind	BPA	Unknown	CHE	SAL	Munro	215820
09/07/2020 19:33		Santiam: Consumers Power 69kV Feeder 1	still out	Auto	Wind	BPA	Unknown	CHE	SAL	Munro	215819

#### Transmission Line Interruptions

Out Datetime	In Datetime	Name	Duration (minutes)	Outage Type	Cause	Responsible System	Length (miles)	OPS SPC Headquarter	O&M District	Transmission Owner NERC TADS	Control Center	Outage ID
09/08/2020 04:27	09/08/2020 04:27	Hebo tap to Boyer-Tillamook No 1 115kV line	0	Auto	Weather	BPA	0.0	CHE	SAL	BPAT	Munro	215866
09/08/2020 04:27	09/08/2020 04:27	Beaver tap to Boyer-Tillamook No 1 115kV line	0	Auto	Weather	BPA	0.1	CHE	SAL	BPAT	Munro	215866
09/08/2020 04:27	09/08/2020 04:27	Beaver-Tillamook section of Boyer-Tillamook No 1	0	Auto	Weather	BPA	14.5	CHE	SAL	BPAT	Munro	215866

		115kV line											
09/08/2020 04:27	09/08/2020 04:27	Boyer-Nestucca section of Boyer-Tillamook No 1 115kV line	0	Auto	Weather	BPA	12.4	CHE	SAL	BPAT	Munro	215866	
09/08/2020 04:27	09/08/2020 04:27	Hebo-Beaver section of Boyer-Tillamook No 1 115kV line	0	Auto	Weather	BPA	4.5	CHE	SAL	BPAT	Munro	215866	
09/08/2020 04:27	09/08/2020 04:27	Nestucca-Hebo section of Boyer-Tillamook No 1 115kV line	0	Auto	Weather	BPA	0.5	CHE	SAL	BPAT	Munro	215866	
09/08/2020 01:57		Pearl-Marion No 1 500kV line	still out	Auto	Fire	BPA	39.4	CHE	SAL	BPAT	Dittmer	215860	
09/08/2020 01:52		Ashe-Marion No 2 500kV line	still out	Auto	Fire	BPA	224.0	ASH CHE	TRI TDA RED SAL	BPAT	Dittmer	215853	
09/08/2020 01:52		Buckley-Marion No 1 500kV line	still out	Auto	Fire	BPA	99.3	CHE TDA TDW	TDA RED SAL	BPAT	Dittmer	215854	
09/08/2020 01:52		John Day-Marion No 1 500kV line	still out	Auto	Fire	BPA	127.5	CHE TDA TDE	TDA RED SAL	BPAT	Dittmer	215859	
09/08/2020 00:19		Detroit-Santiam No 1 230kV line	still out	Auto	Weather	BPA	22.8	CHE	SAL	BPAT	Munro	215851	
09/07/2020 22:50		Tillamook-Garibaldi section of Tillamook-PACW Astoria No 1 115kV line	still out	Auto	Weather	BPA	8.6	CHE	SAL	PAC	Munro	215842	
09/07/2020 22:50		Garibaldi-Mohler section of Tillamook-PACW Astoria No 1 115kV line	still out	Auto	Weather	BPA	10.9	CHE	SAL	PAC	Munro	215842	
09/07/2020 22:50		Garibaldi tap to Tillamook-PACW Astoria No 1 115kV line	still out	Auto	Weather	BPA	0.1	CHE	SAL	PAC	Munro	215842	
09/07/2020 22:50		Cannon Beach-Seaside section of Tillamook-PACW Astoria No 1 115kV	still out	Auto	Weather	BPA	8.6	CHE	SAL	PAC	Munro	215842	

		line											
09/07/2020 22:50	09/08/2020 01:16	Seaside-Warrenton section of Tillamook-PACW Astoria No 1 115kV line	146	Auto	Weather	BPA	12.8	CHE	SAL	PAC	Munro	215842	
09/07/2020 22:50	09/08/2020 01:16	Warrenton-PACW Astoria section of Tillamook-PACW Astoria No 1 115kV line	146	Auto	Weather	BPA	2.7	CHE	SAL	PAC	Munro	215842	
09/07/2020 22:50		Mohler-Nehalem section of Tillamook-PACW Astoria No 1 115kV line	still out	Auto	Weather	BPA	2.5	CHE	SAL	PAC	Munro	215842	
09/07/2020 22:50		Nehalem-Cannon Beach section of Tillamook-PACW Astoria No 1 115kV line	still out	Auto	Weather	BPA	11.6	CHE	SAL	PAC	Munro	215842	
09/07/2020 21:12	09/08/2020 03:42	Carlton-Tillamook No 1 230kV line	390	Auto	Weather	BPA	41.0	CHE	SAL	BPAT	Munro	215837	
09/07/2020 20:55	09/07/2020 20:55	Forest Grove-Thatcher Junction section of Forest Grove-Tillamook No 1 115kV line	0	Auto	Wind	BPA	1.9	CHE	SAL	BPAT	Munro	215832	
09/07/2020 20:55	09/07/2020 20:55	Thatcher Junction-Timber section of Forest Grove-Tillamook No 1 115kV line	0	Auto	Wind	BPA	8.0	CHE	SAL	BPAT	Munro	215832	
09/07/2020 20:55	09/07/2020 20:55	Timber-South Fork section of Forest Grove-Tillamook No 1 115kV line	0	Auto	Wind	BPA	12.2	CHE	SAL	BPAT	Munro	215832	
09/07/2020 20:55	09/07/2020 20:55	South Fork-Tillamook section of Forest Grove-Tillamook No 1 115kV line	0	Auto	Wind	BPA	25.3	CHE	SAL	BPAT	Munro	215832	

09/07/2020 20:55	09/07/2020 20:55	Timber tap to Forest Grove-Tillamook No 1 115kV line	0	Auto	Wind	BPA	11.2	CHE	SAL	BPAT	Munro	215832
09/07/2020 20:55	09/07/2020 20:55	South Fork tap to Forest Grove-Tillamook No 1 115kV line	0	Auto	Wind	BPA	0.1	CHE	SAL	BPAT	Munro	215832
09/07/2020 20:55	09/07/2020 20:55	Thatcher Junction tap to Forest Grove-Tillamook No 1 115kV line	0	Auto	Wind	BPA	0.8	CHE	SAL	BPAT	Munro	215832
01/22/2020 11:22		Detroit PH-Detroit No 1 230kV line	still out	Plan	Urgent	Foreign	0.5	CHE	SAL	BPAT	Munro	213426

### Transformer Interruptions (bulk electric system only)

Out Datetime	In Datetime	Name	Voltage High (kV)	Voltage Low (kV)	Duration (minutes)	Outage Type	Cause	Responsible System	OPS SPC Headquarter	O&M District	Transmission Owner NERC TADS	Control Center	Outage ID
09/07/2020 21:12		Tillamook: 230/115kV Transformer 2	230.0	115.0	still out	Auto	Weather	BPA	CHE	SAL	BPAT	Munro	215836

### Additional Information

Datetime	Comment	Control Center
09/07/2020 15:29	FREQUENCY EXCURSION WITH A MAXIMUM DEVIATION TO 59.9030 HZ RETURNING TO NORMAL RANGE AT 1530. BPA CONTRIBUTING WITH A -1000 PLUS ACE DUE TO LOSS OF GENERATION AT CHJ.	Dittmer
09/08/2020 01:52	FREQUENCY EXCURSION WITH A MAXIMUM DEVIATION TO 59.932 HZ RETURNING TO NORMAL RANGE AT 0156 BPA CONTRIBUTING WITH A - 1206ACE.	Dittmer
09/08/2020 02:23	FREQUENCY EXCURSION WITH A MAXIMUM DEVIATION TO 59.932 HZ RETURNING TO NORMAL RANGE AT 0224. BPA CONTRIBUTING WITH A 575 ACE.	Dittmer

09/08/2020 05:00	Thermal Generation	PNW/PSW Intertie
	Boardman <sup>1</sup>	942 AC Schedule <sup>2</sup> 1920
	Centralia 1 <sup>1</sup>	396 Actual <sup>1</sup> 3010
	Centralia 2 <sup>1</sup>	400 DC Schedule <sup>2</sup> 2046
	Columbia Generating Station <sup>1</sup>	1153 Actual <sup>1</sup> 2087

Notes: 1SCADA, megawatts, instantaneous value; 2Rotary Account, megawatts, integrated hourly value ending

### SUMMARY OF OUTAGES

#### Automatic

	Equipment Back in Normal Service				Still	Total
	0 min	01-30	31-60	Hour+	Total	Out Reported
Customer	8	0	0	0	8	5 13
Transmission	13	0	0	3	16	11 27
Transformer	0	0	0	0	0	1 1
Total	21	0	0	3	24	17 41

#### Planned

	Equipment Back in Normal Service				Still	Total
	0 hrs	01-08	09-24	24+	Total	Out Reported
Customer	0	0	0	0	0	0 0
Transmission	0	0	0	0	0	1 1
Transformer	0	0	0	0	0	0 0



Total            0    0    0    0    0    1       1

[External version of the Daily Interruptions Report](#)  
[Outage History \(OARS\) and historical Daily Interruptions Reports](#)

For content-related issues contact Denise Allen 360.418.2908.

For email distribution-related issues contact Ralph Erdmann 360.418.2333.

Please do not reply to this email as it is sent from a mailbox that is not routinely monitored.

sta

B1093 ASTORIA-L&C SET 1 - SYSTEM NORMAL Date: 09/10/20 Time: 14:02:18.467  
SELF TESTS

W=Warn F=Fail

	IA	IB	IC	VA	VB	VC	MOF
OS	0	-0	-1	0	-1	-1	-0
	+5V_PS	+5V_REG	-5V_REG	+12V_REG	-12V_REG	+15V_PS	-15V_PS
PS	4.94	4.99	-5.00	12.02	-11.99	15.01	-14.86
	TEMP	RAM	ROM	A/D	CR_RAM	EEPROM	SETTINGS
	38.2	OK	OK	OK	OK	OK	OK

Relay Enabled

=>his

B1093 ASTORIA-L&C SET 1 - SYSTEM NORMAL Date: 09/10/20 Time: 14:02:21.093

#	DATE	TIME	EVENT	LOCAT	GRP	TARGETS
1	09/07/20	22:50:14.576	BC T	+6.05	1	SOTF ZONE2 EN B C
2	09/07/20	22:50:14.458	ER	\$\$\$\$\$\$	1	INST ZONE1 EN B C G
3	09/07/20	22:50:11.355	BCG	+6.20	1	INST ZONE1 EN B C G
4	09/07/20	22:37:57.761	ER	\$\$\$\$\$\$	1	EN
5	09/07/20	22:34:48.002	ER	\$\$\$\$\$\$	1	EN
6	09/07/20	22:27:02.013	ER	\$\$\$\$\$\$	1	EN
7	08/17/20	13:41:53.587	ER	\$\$\$\$\$\$	1	EN
8	08/17/20	13:27:11.640	BG	+187.4	1	EN
9	08/12/20	14:24:29.812	ER	\$\$\$\$\$\$	1	EN
10	06/13/20	15:56:21.210	ER	\$\$\$\$\$\$	1	EN
11	05/03/20	03:20:10.997	ER	\$\$\$\$\$\$	1	EN
12	05/03/20	03:20:07.933	CAG	+40.07	1	INST ZONE1 EN G 50
13	01/06/20	19:00:42.788	ER	\$\$\$\$\$\$	1	EN
14	01/01/20	01:58:31.020	CA	+27.09	1	INST ZONE1 EN A C
15	01/01/20	01:58:21.336	ER	\$\$\$\$\$\$	1	EN
16	01/01/20	01:58:18.271	CA	+27.33	1	INST ZONE1 EN A C
17	12/21/19	04:00:26.035	ER	\$\$\$\$\$\$	1	EN
18	12/21/19	01:43:19.992	ER	\$\$\$\$\$\$	1	EN
19	12/20/19	02:05:11.813	AB	+2.02	1	INST SOTF ZONE1 EN A B
20	12/20/19	02:05:11.609	ER	\$\$\$\$\$\$	1	EN
21	12/20/19	02:05:08.547	TRIP	+202.8	1	INST ZONE1 EN G 50
22	12/20/19	02:05:08.422	AG	+28.56	1	EN
23	12/19/19	21:09:46.527	AG T	+16.08	1	SOTF ZONE2 EN G 50
24	12/19/19	20:54:38.904	AG T	+15.68	1	SOTF ZONE2 EN G 50
25	12/19/19	20:54:38.718	ER	\$\$\$\$\$\$	1	EN
26	12/19/19	20:54:35.651	AG	+18.64	1	INST ZONE1 EN G 50
27	10/26/19	16:32:48.299	ER	\$\$\$\$\$\$	1	EN
28	10/21/19	14:58:47.928	ER	\$\$\$\$\$\$	1	EN

29	10/16/19	10:45:27.216	ER	\$\$\$\$\$\$	1	EN				
30	10/16/19	10:45:24.090	BG	+63.21	1	INST	ZONE1	EN	G	50
31	08/30/19	04:56:34.684	ER	\$\$\$\$\$\$	1	EN				
32	08/30/19	04:56:27.868	ER	\$\$\$\$\$\$	1	EN				
33	08/10/19	07:59:22.881	ER	\$\$\$\$\$\$	1	EN				
34	02/12/19	08:29:46.995	ER	\$\$\$\$\$\$	1	EN				
35	11/27/18	01:12:35.939	ER	\$\$\$\$\$\$	1	SOTF	ZONE2	EN	G	50
36	11/27/18	01:12:35.799	BG	+40.73	1	SOTF	ZONE2	EN	G	50
37	11/27/18	01:12:32.739	BG T	+39.75	1	INST	ZONE1	EN	G	50
38	11/27/18	00:20:24.223	ER	\$\$\$\$\$\$	1	EN				
39	11/26/18	23:25:56.649	BG	+41.02	1	INST	ZONE1	EN	G	50
40	11/26/18	23:25:54.919	ER	\$\$\$\$\$\$	1	EN				

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B1093 ASTORIA-L&C SET 2 - SYSTEM NORMAL Date: 09/10/20 Time: 14:14:37.074  
SELF TESTS

W=Warn F=Fail

	IA	IB	IC	VA	VB	VC	MOF
OS	0	1	1	1	0	0	0
	+5V_PS	+5V_REG	-5V_REG	+12V_REG	-12V_REG	+15V_PS	-15V_PS
PS	4.94	4.99	-4.99	12.02	-12.00	15.05	-14.82
	TEMP	RAM	ROM	A/D	CR_RAM	EEPROM	SETTINGS
	37.6	OK	OK	OK	OK	OK	OK

Relay Enabled

=>his

B1093 ASTORIA-L&C SET 2 - SYSTEM NORMAL Date: 09/10/20 Time: 14:14:39.950

#	DATE	TIME	EVENT	LOCAT	GRP	TARGETS
1	09/07/20	22:50:14.578	BC T	+5.91	1	INST SOTF ZONE1 EN B C
2	09/07/20	22:50:14.459	ER	\$\$\$\$\$\$	1	INST ZONE1 EN C G
3	09/07/20	22:50:11.354	BCG	+6.54	1	INST ZONE1 EN C G
4	09/07/20	22:37:57.761	ER	\$\$\$\$\$\$	1	EN
5	09/07/20	22:34:48.000	ER	\$\$\$\$\$\$	1	EN
6	09/07/20	22:27:02.012	ER	\$\$\$\$\$\$	1	EN
7	08/17/20	13:27:11.637	BG	+179.1	1	EN
8	08/12/20	14:24:29.814	ER	\$\$\$\$\$\$	1	EN
9	06/13/20	15:56:21.209	ER	\$\$\$\$\$\$	1	EN
10	05/03/20	03:20:10.997	ER	\$\$\$\$\$\$	1	EN
11	05/03/20	03:20:07.935	CAG	+39.97	1	INST ZONE1 EN G 50
12	01/06/20	19:00:42.791	ER	\$\$\$\$\$\$	1	EN
13	01/01/20	01:58:31.019	CA	+26.94	1	INST ZONE1 EN A C
14	01/01/20	01:58:21.338	ER	\$\$\$\$\$\$	1	EN
15	01/01/20	01:58:18.273	CA	+27.33	1	INST ZONE1 EN A C
16	12/21/19	04:00:26.035	ER	\$\$\$\$\$\$	1	EN
17	12/21/19	01:43:19.993	ER	\$\$\$\$\$\$	1	EN
18	12/20/19	02:05:11.814	AB T	+2.01	1	INST SOTF ZONE1 EN A B
19	12/20/19	02:05:11.608	ER	\$\$\$\$\$\$	1	EN
20	12/20/19	02:05:08.547	BC T	+25.25	1	INST ZONE1 EN G 50
21	12/20/19	02:05:08.422	AG	+29.96	1	EN
22	12/19/19	21:09:46.528	AG T	+16.01	1	SOTF ZONE2 EN G 50
23	12/19/19	20:54:38.905	AG T	+15.94	1	SOTF ZONE2 EN G 50
24	12/19/19	20:54:38.720	ER	\$\$\$\$\$\$	1	EN
25	12/19/19	20:54:35.652	AG	+18.47	1	INST ZONE1 EN G 50
26	12/19/19	13:35:55.916	ER	\$\$\$\$\$\$	1	EN
27	10/26/19	16:32:48.301	ER	\$\$\$\$\$\$	1	EN
28	10/21/19	14:58:47.932	ER	\$\$\$\$\$\$	1	EN

29	10/16/19	10:45:27.217	ER	\$\$\$\$\$\$	1	EN				
30	10/16/19	10:45:24.089	BG	+62.86	1	INST	ZONE1	EN	G	50
31	08/30/19	04:56:34.682	ER	\$\$\$\$\$\$	1	EN				
32	08/30/19	04:56:27.865	ER	\$\$\$\$\$\$	1	EN				
33	08/10/19	07:59:22.882	ER	\$\$\$\$\$\$	1	EN				
34	02/12/19	08:29:46.982	ER	\$\$\$\$\$\$	1	EN				
35	11/27/18	01:12:35.937	ER	\$\$\$\$\$\$	1	SOTF	ZONE2	EN	G	50
36	11/27/18	01:12:35.797	BG	+40.31	1	SOTF	ZONE2	EN	G	50
37	11/27/18	01:12:32.737	BG	+39.01	1	INST	ZONE1	EN	G	50
38	11/27/18	00:20:24.224	ER	\$\$\$\$\$\$	1	EN				
39	11/26/18	23:25:56.647	BG	+40.43	1	INST	ZONE1	EN	G	50
40	11/26/18	23:25:54.919	ER	\$\$\$\$\$\$	1	EN				

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\*\*\*\*TILLAMOOK\*\*\*\*

Station number 56

10 Sep 2020 14:43:52 m

List historical buffer

Point numbers (All, or up to ten point numbers)? a

Time (All, or start time)? 18:00

Enter date MM/DD/YY 09/07/20

Stop time? 23:59

Enter date MM/DD/YY 09/07/20

Number of historical events (1 to 1999, or All)? a

7 Sep 2020 18:01:00 m

7 Sep 2020 19:01:00 m

7 Sep 2020 20:01:00 m

A 20:55:16.437 # 154 PCB B1094 (5K) TRIP SIGNAL SENT @A LM3

A 20:55:16.458 # 149 PCB B1094 (5K) OPEN KEELER #1 115KV 018 @P CB1

A 20:55:16.471 # 63 KEELER 1 DEAD LINE INDICATION 066 @HLI1

A 20:55:16.458 # 119 115KV PCB TRIPPED BY RELAY ACTION @R LY2

N 20:55:16.664 # 154 PCB B1094 (5K) TRIP SIGNAL SENT @ALM3

\*\*\*\*TILLAMOOK\*\*\*\* 56 10 Sep 2020 14:44:29 m

N 20:55:21.187 # 63 KEELER 1 HOT LINE INDICATION @HLI1

A 20:55:21.494 # 155 PCB B1094 (5K) CLOSE SIGNAL SENT @A LM3

N 20:55:21.548 # 149 PCB B1094 (5K) CLOSED @PCB1

N 20:55:21.551 # 119 115KV PCB TRIPPED BY RELAY ACTION @RLY2

N 20:55:21.578 # 155 PCB B1094 (5K) CLOSE SIGNAL SENT @ALM3

7 Sep 2020 21:01:00 m

A 21:12:22.569 # 240 PCB B1100 (2K) HEATER BUS ALARM 008

A 21:12:22.575 # 229 PERMISSIVE TRIP TONE 1 XMIT

A 21:12:22.576 # 62 CARLTON 1 DEAD LINE INDICATION 067 @H LI1

A 21:12:22.580 # 68 TRASK RIVER DEAD LINE INDICATION 68

A 21:12:22.580 # 64 WILSON RIVER DEAD LINE INDICATION 065

N 21:12:22.582 # 68 TRASK RIVER HOT LINE INDICATION

A 21:12:22.586 # 226 PERMISSIVE TRIP TONE 1 RECD

A 21:12:22.586 # 68 TRASK RIVER DEAD LINE INDICATION 68

A 21:12:22.586 # 63 KEELER 1 DEAD LINE INDICATION 066 @HLI1

A 21:12:22.588 # 135 PCB B1098 (3K) TRIP SIGNAL SENT @A LM3  
A 21:12:22.588 # 231 DIRECT TRIP TONE 3 XMIT  
A 21:12:22.588 # 232 DIRECT TRIP TONE 4 XMIT  
A 21:12:22.589 # 227 DIRECT TRIP TONE 3 RECD  
A 21:12:22.589 # 228 DIRECT TRIP TONE 4 RECD  
N 21:12:22.589 # 68 TRASK RIVER HOT LINE INDICATION  
A 21:12:22.598 # 68 TRASK RIVER DEAD LINE INDICATION 68  
N 21:12:22.600 # 68 TRASK RIVER HOT LINE INDICATION  
A 21:12:22.602 # 68 TRASK RIVER DEAD LINE INDICATION 68  
N 21:12:22.606 # 64 WILSON RIVER HOT LINE INDICATION 065  
N 21:12:22.606 # 68 TRASK RIVER HOT LINE INDICATION  
N 21:12:22.613 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
N 21:12:22.613 # 63 KEELER 1 HOT LINE INDICATION @HLI1  
N 21:12:22.616 # 231 DIRECT TRIP TONE 3 XMIT NORMAL  
N 21:12:22.616 # 232 DIRECT TRIP TONE 4 XMIT NORMAL  
A 21:12:22.625 # 129 PCB B1098 (3K) OPEN BANK #2 CARLTON 230KV 024 @P CB1  
N 21:12:22.644 # 228 DIRECT TRIP TONE 4 RECD NORMAL  
N 21:12:22.649 # 227 DIRECT TRIP TONE 3 RECD NORMAL  
A 21:12:22.612 # 119 115KV PCB TRIPPED BY RELAY ACTION @R LY2  
N 21:12:23.672 # 62 CARLTON 1 HOT LINE INDICATION @HLI1  
A 21:12:23.694 # 62 CARLTON 1 DEAD LINE INDICATION 067 @H LI1  
N 21:12:23.701 # 226 PERMISSIVE TRIP TONE 1 RECD NORMAL  
A 21:12:23.711 # 226 PERMISSIVE TRIP TONE 1 RECD  
A 21:12:23.712 # 227 DIRECT TRIP TONE 3 RECD  
A 21:12:23.713 # 228 DIRECT TRIP TONE 4 RECD  
N 21:12:23.765 # 227 DIRECT TRIP TONE 3 RECD NORMAL  
N 21:12:23.765 # 228 DIRECT TRIP TONE 4 RECD NORMAL  
A 21:57:45.223 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
A 21:57:45.225 # 195 B1093 (9K) HEATER BUS 008 @ALM2  
N 21:57:45.230 # 195 B1093 (9K) HEATER BUS NORMAL @ALM2  
N 21:57:45.231 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
A 21:57:45.234 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
A 21:57:45.236 # 195 B1093 (9K) HEATER BUS 008 @ALM2

N 21:57:45.238 #	252 PCB B1092 (6K) HEATER SYSTEM	8
N 21:57:45.239 #	195 B1093 (9K) HEATER BUS NORMAL	@ALM2
A 21:57:45.244 #	195 B1093 (9K) HEATER BUS	008 @ALM2
A 21:57:45.244 #	252 PCB B1092 (6K) HEATER SYSTEM	8
N 21:57:45.247 #	195 B1093 (9K) HEATER BUS NORMAL	@ALM2
N 21:57:45.247 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.252 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.253 #	195 B1093 (9K) HEATER BUS	008 @ALM2
N 21:57:45.256 #	195 B1093 (9K) HEATER BUS NORMAL	@ALM2
N 21:57:45.256 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.259 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.261 #	195 B1093 (9K) HEATER BUS	008 @ALM2
N 21:57:45.263 #	252 PCB B1092 (6K) HEATER SYSTEM	8
****TILLAMOOK**** 56 10 Sep 2020 14:44:34 m		
N 21:57:45.264 #	195 B1093 (9K) HEATER BUS NORMAL	@ALM2
A 21:57:45.266 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.269 #	195 B1093 (9K) HEATER BUS	008 @ALM2
N 21:57:45.272 #	195 B1093 (9K) HEATER BUS NORMAL	@ALM2
A 21:57:45.277 #	195 B1093 (9K) HEATER BUS	008 @ALM2
N 21:57:45.280 #	195 B1093 (9K) HEATER BUS NORMAL	@ALM2
N 21:57:45.281 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.283 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.286 #	195 B1093 (9K) HEATER BUS	008 @ALM2
D 21:57:45.286 #	195 B1093 (9K) HEATER BUS	008 @ALM2
N 21:57:45.289 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:45.291 #	252 PCB B1092 (6K) HEATER SYSTEM	8
D 21:57:45.291 #	252 PCB B1092 (6K) HEATER SYSTEM	8
A 21:57:47.322 #	141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE ALARM	008
N 21:57:47.648 #	141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE NORMAL	
A 21:57:52.861 #	141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE ALARM	008
N 21:57:53.064 #	141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE NORMAL	
L 21:58:43.003 #	195 B1093 (9K) HEATER BUS NORMAL	@ALM2



L	21:58:43.003	#	252 PCB B1092 (6K) HEATER SYSTEM		8
N		#	195 B1093 (9K) HEATER BUS NORMAL		@ALM2
N		#	252 PCB B1092 (6K) HEATER SYSTEM		8
7 Sep 2020 22:01:00 m					
A	22:37:54.399	#	240 PCB B1100 (2K) HEATER BUS ALARM	008	
A	22:37:54.402	#	122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE ALARM	008	
A	22:37:55.234	#	195 B1093 (9K) HEATER BUS	008	@ALM2
A	22:37:55.234	#	252 PCB B1092 (6K) HEATER SYSTEM		8
A	22:37:55.231	#	19 PRIMARY STATION SERVICE FAILURE	051	@A LM2
A	22:37:55.233	#	141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE ALARM	008	
A	22:37:55.279	#	249 PCB B1092 (6K) ENERGY STORAGE SYSTEM		8
A	22:37:55.287	#	194 PCB1093 (9K) ENERGY STORAGE SYSTEM	008"	@ALM2
A	22:37:55.294	#	198 PCB B1097 (10K) ENERGY STORAGE	008	@A LM2
A	22:37:55.300	#	237 PCB B1100 (2K) ENERGY STORAGE SYSTEM ALARM	008	
N	22:37:56.000	#	240 PCB B1100 (2K) HEATER BUS NORMAL		
N	22:37:56.000	#	122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE NORMAL		
N	22:37:56.002	#	195 B1093 (9K) HEATER BUS NORMAL		@ALM2
A	22:37:56.002	#	240 PCB B1100 (2K) HEATER BUS ALARM	008	
N	22:37:56.002	#	252 PCB B1092 (6K) HEATER SYSTEM		8
N	22:37:56.003	#	141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE NORMAL		
N	22:37:56.004	#	237 PCB B1100 (2K) ENERGY STORAGE SYSTEM NORMAL		
N	22:37:56.005	#	194 PCB1093 (9K) ENERGY STORAGE SYSTEM NORMAL		@ALM2
N	22:37:56.005	#	249 PCB B1092 (6K) ENERGY STORAGE SYSTEM		8
N	22:37:56.006	#	240 PCB B1100 (2K) HEATER BUS NORMAL		
N	22:37:56.006	#	198 PCB B1097 (10K) ENERGY STORAGE NORMAL		@ALM2
N	22:37:57.249	#	19 STATION SERVICE FAIL NORMAL		@ALM2
A	22:37:57.378	#	240 PCB B1100 (2K) HEATER BUS ALARM	008	
A	22:37:57.379	#	122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE ALARM	008	
N	22:37:57.388	#	240 PCB B1100 (2K) HEATER BUS NORMAL		
A	22:37:57.396	#	240 PCB B1100 (2K) HEATER BUS ALARM	008	
N	22:37:57.405	#	240 PCB B1100 (2K) HEATER BUS NORMAL		
A	22:37:57.410	#	240 PCB B1100 (2K) HEATER BUS ALARM	008	
N	22:37:57.414	#	240 PCB B1100 (2K) HEATER BUS NORMAL		
A	22:37:57.418	#	240 PCB B1100 (2K) HEATER BUS ALARM	008	

N 22:37:57.424 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:37:57.426 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:37:57.430 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:37:57.435 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 D 22:37:57.435 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
 N 22:37:57.480 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE NORMAL  
 A 22:37:57.585 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE ALARM 008  
  
 N 22:37:57.689 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE NORMAL  
 A 22:37:58.111 # 19 PRIMARY STATION SERVICE FAILURE 051 @A LM2

\*\*\*\*TILLAMOOK\*\*\*\* 56 10 Sep 2020 14:44:40 m

N 22:38:03.122 # 19 STATION SERVICE FAIL NORMAL @ALM2  
 L 22:39:13.003 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 N # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:01.519 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:42:01.524 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:01.532 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:42:01.535 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:01.537 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:42:01.541 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:04.859 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:42:04.864 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:04.877 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:42:04.881 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:04.892 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:42:04.898 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:04.907 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 N 22:42:04.914 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:42:04.927 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 D 22:42:04.927 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
 L 22:42:58.003 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 N # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 A 22:43:14.321 # 195 B1093 (9K) HEATER BUS 008 @ALM2  
  
 A 22:43:14.321 # 141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE ALARM 008

A 22:43:14.322 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
A 22:43:14.324 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
A 22:43:14.325 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE ALARM 008  
A 22:43:14.361 # 249 PCB B1092 (6K) ENERGY STORAGE SYSTEM 8  
A 22:43:14.372 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM 008" @ALM2  
A 22:43:14.450 # 237 PCB B1100 (2K) ENERGY STORAGE SYSTEM ALARM 008  
N 22:43:14.464 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
N 22:43:14.464 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE NORMAL  
N 22:43:14.465 # 237 PCB B1100 (2K) ENERGY STORAGE SYSTEM NORMAL  
A 22:43:14.466 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
N 22:43:14.467 # 141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE NORMAL  
N 22:43:14.467 # 195 B1093 (9K) HEATER BUS NORMAL @ALM2  
N 22:43:14.467 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
N 22:43:14.469 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM NORMAL @ALM2  
N 22:43:14.470 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
N 22:43:14.470 # 249 PCB B1092 (6K) ENERGY STORAGE SYSTEM 8  
#####  
A 22:50:11.392 # 195 B1093 (9K) HEATER BUS 008 @ALM2  
A 22:50:11.393 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
A 22:50:11.403 # 191 PCB B1093 (9K) TRIP SIGNAL SENT @A LM3  
A 22:50:11.432 # 187 PCB B1093 (9K) OPEN PP&L ASTORIA 115KV 010 @P CB1  
3ph trip t=0s  
N 22:50:11.442 # 195 B1093 (9K) HEATER BUS NORMAL @ALM2  
... no trip by relay? ...  
N 22:50:11.442 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
N 22:50:11.633 # 191 PCB B1093 (9K) TRIP SIGNAL SENT @ALM3  
A 22:50:12.722 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
N 22:50:12.747 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
A 22:50:12.887 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
N 22:50:12.931 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
A 22:50:12.981 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
N 22:50:13.005 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
A 22:50:13.080 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
N 22:50:13.106 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
A 22:50:13.230 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1

N 22:50:13.255 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
 A 22:50:13.377 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
  
 N 22:50:13.398 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
 A 22:50:13.440 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
  
 A 22:50:14.463 # 192 PCB B1093 (9K) CLOSE SIGNAL SENT @A LM3  
  
 N 22:50:14.551 # 187 PCB B1093 (9K) CLOSED @PCB1  
 reclose t=3.119s  
  
 \*\*\*\*TILLAMOOK\*\*\*\* 56 10 Sep 2020 14:44:45 m  
 N 22:50:14.571 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
 A 22:50:14.576 # 195 B1093 (9K) HEATER BUS 008 @ALM2  
  
 A 22:50:14.576 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
  
 A 22:50:14.580 # 191 PCB B1093 (9K) TRIP SIGNAL SENT @A LM3  
  
 A 22:50:14.614 # 187 PCB B1093 (9K) OPEN PP&L ASTORIA 115KV 010 @P CB1  
 soft trip, lockout t=3.182s  
 N 22:50:14.617 # 195 B1093 (9K) HEATER BUS NORMAL @ALM2  
 N 22:50:14.617 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
 N 22:50:14.626 # 192 PCB B1093 (9K) CLOSE SIGNAL SENT @ALM3  
 A 22:50:14.632 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
  
 D 22:50:14.632 # 66 PP&L ASTORIA DEAD LINE INDICATION 063 @HLI1  
 N 22:50:14.807 # 191 PCB B1093 (9K) TRIP SIGNAL SENT @ALM3  
 A 22:50:15.176 # 195 B1093 (9K) HEATER BUS 008 @ALM2  
  
 A 22:50:15.176 # 141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE ALARM 008  
  
 A 22:50:15.177 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
  
 A 22:50:15.181 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 A 22:50:15.182 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE ALARM 008  
  
 A 22:50:15.223 # 249 PCB B1092 (6K) ENERGY STORAGE SYSTEM 8  
  
 A 22:50:15.234 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM 008" @ALM2  
  
 A 22:50:15.241 # 198 PCB B1097 (10K) ENERGY STORAGE 008 @A LM2  
  
 N 22:50:15.295 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM NORMAL @ALM2  
 A 22:50:15.301 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM 008" @ALM2  
  
 A 22:50:15.302 # 237 PCB B1100 (2K) ENERGY STORAGE SYSTEM ALARM 008

N 22:50:15.331 # 195 B1093 (9K) HEATER BUS NORMAL @ALM2  
 N 22:50:15.332 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
 N 22:50:15.332 # 141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE NORMAL  
 N 22:50:15.334 # 237 PCB B1100 (2K) ENERGY STORAGE SYSTEM NORMAL  
 N 22:50:15.335 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 N 22:50:15.335 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE NORMAL  
 N 22:50:15.337 # 249 PCB B1092 (6K) ENERGY STORAGE SYSTEM 8  
 N 22:50:15.342 # 198 PCB B1097 (10K) ENERGY STORAGE NORMAL @ALM2  
 N 22:50:19.462 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM NORMAL @ALM2  
 L 22:51:12.984 # 66 PP&L ASTORIA HOT LINE INDICATION @HLI1  
 A 22:55:25.478 # 195 B1093 (9K) HEATER BUS 008 @ALM2  
  
 A 22:55:25.478 # 141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE ALARM 008  
  
 A 22:55:25.479 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
  
 A 22:55:25.482 # 240 PCB B1100 (2K) HEATER BUS ALARM 008  
  
 A 22:55:25.483 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE ALARM 008  
  
 A 22:55:25.520 # 249 PCB B1092 (6K) ENERGY STORAGE SYSTEM 8  
  
 A 22:55:25.528 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM 008" @ALM2  
  
 A 22:55:25.604 # 237 PCB B1100 (2K) ENERGY STORAGE SYSTEM ALARM 008  
  
 N 22:55:25.624 # 195 B1093 (9K) HEATER BUS NORMAL @ALM2  
 N 22:55:25.625 # 237 PCB B1100 (2K) ENERGY STORAGE SYSTEM NORMAL  
 N 22:55:25.625 # 252 PCB B1092 (6K) HEATER SYSTEM 8  
 N 22:55:25.625 # 141 CKT SWR B1096 (4K) EQUIPMENT TROUBLE NORMAL  
 N 22:55:25.627 # 194 PCB1093 (9K) ENERGY STORAGE SYSTEM NORMAL @ALM2  
 N 22:55:25.628 # 240 PCB B1100 (2K) HEATER BUS NORMAL  
 N 22:55:25.628 # 249 PCB B1092 (6K) ENERGY STORAGE SYSTEM 8  
 N 22:55:25.628 # 122 CKT SWR B1083 (1K) EQUIPMENT TROUBLE NORMAL  
 7 Sep 2020 23:01:00 m  
 A 23:54:24.491 # 5 ENTRY ALARM IN 004 @A LM3  
  
 N 23:54:30.937 # 5 ENTRY ALARM DOOR CLOSED @ALM3  
 A 23:54:35.647 # 5 ENTRY ALARM IN 004 @A LM3  
  
 N 23:54:38.110 # 5 ENTRY ALARM DOOR CLOSED @ALM3  
 LH complete  
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