Memorandum

Date: November 19, 2009 **Filename:** CVP Cal 09.doc

To: ENVIRONMENTAL SERVICES

From: APPLIED TECHNOLOGY SERVICES

Subject: Temperature Data Logger 2009 Calibration Report

Pacific Gas and Electric Company

GINA MORIMOTO:

Thirty-six VEMCO TR-12 temperature recorders listed in Table 1 were calibrated at PG&E's Applied Technology Services (ATS) on November 19, 2009 using manufacturer's calibration procedures. One unit failed to operate and thirty-five were certified in tolerance (± 0.1 °C) as found using National Institute of Standards and Technology traceable instrumentation.

Traceable Instrument Identification:
Model No. 15-077-8 S/N 221367532 Fisher Scientific Digital Thermometer
Probe: 15-077-7 S/N 240301157

Precision Water Bath:
Thermo Neslab RTC 17 S/N 103198062

Individual Calibration Certificates can be printed if necessary. Original calibration data are located at PG&E, ATS, Main Bldg. Rm 151.

ERIC KENZLER
Technologist, ATS

EMKenzler(251-5806):emk

Attachment

Table 1. Pacific Gas & Electric Company – Applied Technical Services
Temperature Data Loggers Calibration Record

Crane Valley Project

Count	Model	SN:	Cal Date	In Tolerance
1	Vemco TR-12	1306J	11/20/2009	Y
2	Vemco TR-12	1307J	11/20/2009	Y
3	Vemco TR-12	1308J	11/20/2009	Y
4	Vemco TR-12	1309J	11/20/2009	Y
5	Vemco TR-12	1310J	11/20/2009	Y
6	Vemco TR-12	1311J	11/20/2009	Y
7	Vemco TR-12	1312J	11/20/2009	Y
8	Vemco TR-12	1313J	11/20/2009	Y
9	Vemco TR-12	1314J	11/20/2009	Y
10	Vemco TR-12	1315J	11/20/2009	Y
11	Vemco TR-12	1316J	11/20/2009	Y
12	Vemco TR-12	1317J	11/20/2009	Y
13	Vemco TR-12	1318J	11/20/2009	Y
14	Vemco TR-12	1319J	11/20/2009	Y
15	Vemco TR-12	1320J	11/20/2009	Y
16	Vemco TR-12	1321J	11/20/2009	Y
17	Vemco TR-12	1322J	11/20/2009	Y
18	Vemco TR-12	1323J	11/20/2009	Y
19	Vemco TR-12	1324J	11/20/2009	Y
20	Vemco TR-12	1325J	11/20/2009	Y
21	Vemco TR-12	1326J	11/20/2009	Y
22	Vemco TR-12	1327J	11/20/2009	Y
23	Vemco TR-12	1328J	11/20/2009	Y
24	Vemco TR-12	1329J	11/20/2009	Y
25	Vemco TR-12	1330J	11/20/2009	Y
26	Vemco TR-12	1331J	11/20/2009	Y
27	Vemco TR-12	1332J	11/20/2009	Y
28	Vemco TR-12	4563E	11/20/2009	Y
29	Vemco TR-12	4564E	11/20/2009	Y
30	Vemco TR-12	4565E	11/20/2009	Y
31	Vemco TR-12	0937E	11/20/2009	Fail[1]
32	Vemco TR-12	0940E	11/20/2009	Y
33	Vemco TR-12	0946A	11/20/2009	Y
34	Vemco TR-12	0947E	11/20/2009	Y
35	Vemco TR-12	9324A	11/20/2009	Y
36	Vemco TR-12	9345A	11/20/2009	Y

1. Unit failed to operate during calibration testing.