ATTACHMENT 9
TO P-85040

TITLE: CRD TEMPERATURE DATA COLLECTION

DEPARTMENT: RESULTS

ISSUANCE AUTHORIZED BY	Milt McBride		
PORC REVIEW	PORC 549 DEC 27 1983		EFFECTIVE DATE 12-30-83

Do not start test before_____ Week # _____

and must be completed by_____ Sch. Clerk

This procedure cannot be run in its entirety for the following reasons:

___ 1. This system is not operating.

___ 2. This system is not required to be operating and has a frequency of one month or less (reference Technical Specification, paragraph 2.18).

___ 3. Reactor is in "scrammed" condition.

___ 4. Loop I is in "Loop Shutdown" condition.

___ 5. Loop II is in "Loop Shutdown" condition.

___ 6. 1A Helium circulator is in "tripped condition".

___ 7. 1B Helium circulator is in "tripped condition".

___ 8. 1C Helium circulator is in "tripped condition".

___ 9. 1D Helium circulator is in "tripped condition".

___ 10. Other_____

_____

_____

___ 11. Reschedule test for_____

_____
Department Supervisor

FORM 372-22-3642

1.0 PURPOSE

The purpose of this test is to provide for regular temperature recordings of the CRD assemblies that are equipped with temperature devices.

2.0 PRECAUTIONS, LIMITATIONS, AND SPECIAL ASSISTANCE

None.

3.0 PREREQUISITES

3.1 Test Equipment

Name	Identification No.	Last Calibration Date
DVM		

3.2 References _____

_____

4.0 AUTHORIZATIONS

4.1 Departmental Approval

_____
Dept. Supervisor Date

4.2 Mech/Elec Clearance Issued, if required: Number Not Required

4.3 Radiation Work Permit Issued, if required: Number Not Required

4.4 Permission to initiate test

_____
Shift Supervisor Date

5.0 PROCEDURE

5.1 PRELIMINARY CHECKS

5.1.1 The temperatures are to be read when the reactor power level is ≥ 50% or the core Δp is ≥ 3 psid and,

a) As soon as possible after weekly control rod drop tests (SR 5.1.1b-M) have been performed.

b) When the reactor steady-state power level is changed ± 10% or more. This test can be done at the same time that the linear power channels are calibrated because of the change in the power level.

5.2 TEST PROCEDURE (FOR DATA COLLECTION ONLY)

5.2.1 The temperatures to be read are the CRD motor, orifice valve motor plate and upper helium environment temperatures of the CRD's which have had RTD's (Resistance Temperature Devices) installed in the aforementioned areas. RTD's will eventually be installed in all the CRD assemblies as the CRD's are pulled out for maintenance and refueling over the next few years. (See data sheets for recording of temperatures.)

5.2.2 All temperatures should be less than 250°F, if not, contact Station Manager.

Test Conductor Signature _____ Date _____

DATA SHEET

Reactor POWER _____ %

Average Core Inlet Temp. _____ °F

Core ΔP PSID _____

Primary Coolant Flow _____ %

REGION	ORIFICE POSITION (% OPEN)	CRD POSITION (INCHES)
15		
31		
34		
4		
5		
35		

_____ _____
Test Conductor Signature Date

DATA SHEET (continued)

	Back of MCC Terminals	Upper Helium Environment Ω	Upper Helium Environment °F per Table	Back of MCC Terminals	Orifice Valve Motor Plate Ω	Orifice Valve Motor Plate °F per Table	Back of MCC Terminals	CRD Motor Temp. Ω	CRD Motor Temp. °F per Table
Region 15	5			7			14		
	6			8			17		
Region 4	13			6			5		
	14			12			4		
Region 34	5			7			14		
	6			8			17		
Region 31	5			7			14		
	6			8			17		

	Back of MCC Terminals	Orifice Valve Motor Plate Ω	Orifice Valve Motor Plate °F per Table	Back of MCC Terminals	CRD Motor Temperature Ω	CRD Motor Temperature °F per Table
Region 5	7			5		
	8			6		
Region 35	7			5		
	8			6		

NOTE: Reactor Power, Avg. Core Inlet Temp., Core ΔP and Primary Coolant Flow information are found on the data logger. Orifice position and CRD position are found on I-04.

Regions 15, 4, 34, 31: resistance reading is converted to °C per Table XVIII.

$$\frac{C \times 9}{5} + 32 = 32\,^{\circ}F$$

Regions 5, 35:

$$\frac{[\text{resistance reading} - 400]}{157} \times 180 + 32 = {}^{\circ}F$$

Test Conductor Signature _____ Date _____

TABLE XVIII (cont.) Temperature Vs. Resistance Table

For European Curve, Alpha = .00385 — 1° Celsius Increments

°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.
-480	274.25	0.34	-542	294.81	0.32	-604	314.93	0.32	-666	334.60	0.31	-728	353.84	0.31	+790	372.62	0.30
481	274.59	0.34	543	295.14	0.33	605	315.26	0.33	667	334.92	0.32	729	354.14	0.30	791	372.92	0.30
482	274.92	0.33	544	295.47	0.33	606	315.58	0.32	668	335.23	0.31	730	354.45	0.31	792	373.22	0.30
483	275.26	0.34	545	295.80	0.33	607	315.90	0.32	669	335.55	0.32	731	354.76	0.31	793	373.52	0.30
484	275.60	0.34	546	296.12	0.32	608	316.22	0.32	670	335.86	0.31	732	355.06	0.30	794	373.82	0.30
485	275.93	0.33	547	296.45	0.33	609	316.54	0.32	671	336.17	0.31	733	355.37	0.31	795	374.12	0.30
486	276.26	0.33	548	296.78	0.33	610	316.86	0.32	672	336.49	0.32	734	355.67	0.30	796	374.41	0.29
487	276.60	0.34	549	297.10	0.32	611	317.18	0.32	673	336.80	0.31	735	355.98	0.31	797	374.71	0.30
488	276.93	0.33	550	297.43	0.33	612	317.50	0.32	674	337.11	0.31	736	356.29	0.31	798	375.01	0.30
489	277.27	0.34	551	297.76	0.33	613	317.82	0.32	675	337.43	0.32	737	356.59	0.30	799	375.31	0.30
490	277.60	0.33	552	298.08	0.32	614	318.14	0.32	676	337.74	0.31	738	356.90	0.31	800	375.61	0.30
491	277.93	0.33	553	298.41	0.33	615	318.46	0.32	677	338.05	0.31	739	357.20	0.30	801	375.91	0.30
492	278.27	0.34	554	298.74	0.33	616	318.77	0.31	678	338.36	0.31	740	357.51	0.31	802	376.21	0.30
493	278.60	0.33	555	299.07	0.33	617	319.09	0.32	679	338.68	0.32	741	357.81	0.30	803	376.50	0.29
494	278.93	0.33	556	299.39	0.32	618	319.41	0.32	680	338.99	0.31	742	358.12	0.31	804	376.80	0.30
495	279.27	0.34	557	299.72	0.33	619	319.73	0.32	681	339.30	0.31	743	358.42	0.30	805	377.10	0.30
496	279.60	0.33	558	300.05	0.33	620	320.05	0.32	682	339.61	0.31	744	358.73	0.31	806	377.40	0.30
497	279.93	0.33	559	300.37	0.32	621	320.37	0.32	683	339.92	0.31	745	359.03	0.30	807	377.70	0.30
498	280.26	0.33	560	300.70	0.33	622	320.69	0.32	684	340.23	0.31	746	359.33	0.30	808	377.99	0.29
499	280.60	0.34	561	301.03	0.33	623	321.01	0.32	685	340.55	0.32	747	359.64	0.31	809	378.29	0.30
500	280.93	0.33	562	301.35	0.32	624	321.33	0.32	686	340.86	0.31	748	359.94	0.30	810	378.59	0.30
501	281.26	0.33	563	301.68	0.33	625	321.65	0.32	687	341.17	0.31	749	360.25	0.31	811	378.89	0.30
502	281.59	0.33	564	302.00	0.32	626	321.96	0.31	688	341.48	0.31	750	360.55	0.30	812	379.18	0.29
503	281.93	0.34	565	302.33	0.33	627	322.28	0.32	689	341.79	0.31	751	360.85	0.30	813	379.48	0.30
504	282.26	0.33	566	302.65	0.32	628	322.60	0.32	690	342.10	0.31	752	361.16	0.31	814	379.77	0.29
505	282.59	0.33	567	302.98	0.33	629	322.92	0.32	691	342.41	0.31	753	361.46	0.30	815	380.07	0.30
506	282.92	0.33	568	303.30	0.32	630	323.24	0.32	692	342.72	0.31	754	361.77	0.31	816	380.37	0.30
507	283.25	0.33	569	303.63	0.33	631	323.56	0.32	693	343.03	0.31	755	362.07	0.30	817	380.66	0.29
508	283.59	0.34	570	303.95	0.32	632	323.87	0.31	694	343.34	0.31	756	362.37	0.30	818	380.96	0.30
509	283.92	0.33	571	304.28	0.33	633	324.19	0.32	695	343.66	0.32	757	362.68	0.31	819	381.25	0.29
510	284.25	0.33	572	304.60	0.32	634	324.51	0.32	696	343.97	0.31	758	362.98	0.30	820	381.55	0.30
511	284.58	0.33	573	304.93	0.33	635	324.83	0.32	697	344.28	0.31	759	363.29	0.31	821	381.85	0.30
512	284.91	0.33	574	305.25	0.32	636	325.14	0.31	698	344.59	0.31	760	363.59	0.30	822	382.14	0.29
513	285.25	0.34	575	305.58	0.33	637	325.46	0.32	699	344.90	0.31	761	363.89	0.30	823	382.44	0.30
514	285.58	0.33	576	305.90	0.32	638	325.78	0.32	700	345.21	0.31	762	364.19	0.30	824	382.73	0.29
515	285.91	0.33	577	306.23	0.33	639	326.09	0.31	701	345.52	0.31	763	364.50	0.31	825	383.03	0.30
516	286.24	0.33	578	306.55	0.32	640	326.41	0.32	702	345.83	0.31	764	364.80	0.30	826	383.32	0.29
517	286.57	0.33	579	306.88	0.33	641	326.73	0.32	703	346.14	0.31	765	365.10	0.30	827	383.62	0.30
518	286.91	0.34	580	307.20	0.32	642	327.04	0.31	704	346.45	0.31	766	365.40	0.30	828	383.91	0.29
519	287.24	0.33	581	307.52	0.32	643	327.36	0.32	705	346.76	0.31	767	365.70	0.30	829	384.21	0.30
520	287.57	0.33	582	307.85	0.33	644	327.67	0.31	706	347.06	0.30	768	366.01	0.31	830	384.50	0.29
521	287.90	0.33	583	308.17	0.32	645	327.99	0.32	707	347.37	0.31	769	366.31	0.30	831	384.80	0.30
522	288.23	0.33	584	308.49	0.32	646	328.31	0.32	708	347.68	0.31	770	366.61	0.30	832	385.09	0.29
523	288.56	0.33	585	308.82	0.33	647	328.62	0.31	709	347.99	0.31	771	366.91	0.30	833	385.39	0.30
524	288.89	0.33	586	309.14	0.32	648	328.94	0.32	710	348.30	0.31	772	367.21	0.30	834	385.68	0.29
525	289.22	0.33	587	309.46	0.32	649	329.25	0.31	711	348.61	0.31	773	367.51	0.30	835	385.98	0.30
526	289.55	0.33	588	309.78	0.32	650	329.57	0.32	712	348.92	0.31	774	367.81	0.30	836	386.27	0.29
527	289.88	0.33	589	310.11	0.33	651	329.89	0.32	713	349.22	0.30	775	368.12	0.31	837	386.57	0.30
528	290.21	0.33	590	310.43	0.32	652	330.20	0.31	714	349.53	0.31	776	368.42	0.30	838	386.86	0.29
529	290.54	0.33	591	310.75	0.32	653	330.52	0.32	715	349.84	0.31	777	368.72	0.30	839	387.16	0.30
530	290.87	0.33	592	311.07	0.32	654	330.83	0.31	716	350.15	0.31	778	369.02	0.30	840	387.45	0.29
531	291.20	0.33	593	311.40	0.33	655	331.15	0.32	717	350.46	0.31	779	369.32	0.30	841	387.74	0.29
532	291.53	0.33	594	311.72	0.32	656	331.46	0.31	718	350.76	0.30	780	369.62	0.30	842	388.04	0.30
533	291.86	0.33	595	312.04	0.32	657	331.78	0.32	719	351.07	0.31	781	369.92	0.30	843	388.33	0.29
534	292.19	0.33	596	312.36	0.32	658	332.09	0.31	720	351.38	0.31	782	370.22	0.30	844	388.62	0.29
535	292.52	0.33	597	312.68	0.32	659	332.41	0.32	721	351.69	0.31	783	370.52	0.30	845	388.92	0.30
536	292.84	0.32	598	313.01	0.33	660	332.72	0.31	722	351.99	0.30	784	370.82	0.30	846	389.21	0.29
537	293.17	0.33	599	313.33	0.32	661	333.03	0.31	723	352.30	0.31	785	371.12	0.30	847	389.50	0.29
538	293.50	0.33	600	313.65	0.32	662	333.35	0.32	724	352.61	0.31	786	371.42	0.30	848	389.79	0.29
539	293.83	0.33	601	313.97	0.32	663	333.66	0.31	725	352.92	0.31	787	371.72	0.30	849	390.08	0.29
540	294.16	0.33	602	314.29	0.32	664	333.98	0.32	726	353.22	0.30	788	372.02	0.30	850	390.38	0.30
541	294.49	0.33	603	314.61	0.32	665	334.29	0.31	727	353.53	0.31	789	372.32	0.30			

Test Conductor Signature _____ Date _____

TABLE XVIII Temperature Vs. Resistance Table

For European Curve, Alpha = .00385 — 1° Celsius Increments

°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.
-220	10.41		160	35.48	0.42	100	60.20	0.41	-40	84.21	0.40	± 0	100.00	0.39	+ 60	123.24	0.38
219	10.81	0.40	159	35.90	0.42	99	60.61	0.41	39	84.61	0.40	- 1	100.39	0.39	61	123.62	0.38
218	11.20	0.39	158	36.31	0.41	98	61.01	0.40	38	85.00	0.39	2	100.78	0.39	62	124.01	0.39
217	11.60	0.40	157	36.73	0.42	97	61.42	0.41	37	85.40	0.40	3	101.17	0.39	63	124.39	0.38
216	11.99	0.39	156	37.15	0.42	96	61.82	0.40	36	85.79	0.39	4	101.56	0.39	64	124.77	0.38
215	12.39	0.40	155	37.57	0.42	95	62.23	0.41	35	86.19	0.40	5	101.95	0.39	65	125.16	0.39
214	12.78	0.39	154	37.98	0.41	94	62.63	0.40	34	86.59	0.40	6	102.34	0.39	66	125.54	0.38
213	13.18	0.40	153	38.40	0.42	93	63.04	0.41	33	86.98	0.39	7	102.73	0.39	67	125.92	0.38
212	13.57	0.39	152	38.82	0.42	92	63.44	0.40	32	87.38	0.40	8	103.12	0.39	68	126.30	0.38
211	13.97	0.40	151	39.23	0.41	91	63.85	0.41	31	87.77	0.39	9	103.51	0.39	69	126.69	0.39
210	14.36	0.39	150	39.65	0.42	90	64.25	0.40	30	88.17	0.40	10	103.90	0.39	70	127.07	0.38
209	14.78	0.42	149	40.07	0.42	89	64.65	0.40	29	88.57	0.40	11	104.29	0.39	71	127.45	0.38
208	15.19	0.41	148	40.48	0.41	88	65.06	0.41	28	88.96	0.39	12	104.68	0.39	72	127.83	0.38
207	15.61	0.42	147	40.90	0.42	87	65.46	0.40	27	89.36	0.40	13	105.07	0.39	73	128.22	0.39
206	16.03	0.42	146	41.31	0.41	86	65.86	0.40	26	89.75	0.39	14	105.46	0.39	74	128.60	0.38
205	16.45	0.42	145	41.73	0.42	85	66.27	0.41	25	90.15	0.40	15	105.85	0.39	75	128.98	0.38
204	16.86	0.41	144	42.14	0.41	84	66.67	0.40	24	90.55	0.40	16	106.23	0.38	76	129.36	0.38
203	17.28	0.42	143	42.56	0.42	83	67.07	0.40	23	90.94	0.39	17	106.62	0.39	77	129.74	0.38
202	17.70	0.42	142	42.97	0.41	82	67.47	0.40	22	91.34	0.40	18	107.01	0.39	78	130.13	0.39
201	18.11	0.41	141	43.39	0.42	81	67.88	0.41	21	91.73	0.39	19	107.40	0.39	79	130.51	0.38
200	18.53	0.42	140	43.80	0.41	80	68.28	0.40	20	92.13	0.40	20	107.79	0.39	80	130.89	0.38
199	18.96	0.43	139	44.21	0.41	79	68.68	0.40	19	92.52	0.39	21	108.18	0.39	81	131.27	0.38
198	19.38	0.42	138	44.63	0.42	78	69.08	0.40	18	92.92	0.40	22	108.57	0.39	82	131.65	0.38
197	19.81	0.43	137	45.04	0.41	77	69.48	0.40	17	93.31	0.39	23	108.95	0.38	83	132.03	0.38
196	20.23	0.42	136	45.45	0.41	76	69.88	0.40	16	93.71	0.40	24	109.34	0.39	84	132.41	0.38
195	20.66	0.43	135	45.87	0.42	75	70.29	0.41	15	94.10	0.39	25	109.73	0.39	85	132.80	0.39
194	21.08	0.42	134	46.28	0.41	74	70.69	0.40	14	94.49	0.39	26	110.12	0.39	86	133.18	0.38
193	21.51	0.43	133	46.69	0.41	73	71.09	0.40	13	94.89	0.40	27	110.51	0.39	87	133.56	0.38
192	21.93	0.42	132	47.10	0.41	72	71.49	0.40	12	95.28	0.39	28	110.89	0.38	88	133.94	0.38
191	22.36	0.43	131	47.52	0.42	71	71.89	0.40	11	95.68	0.40	29	111.28	0.39	89	134.32	0.38
190	22.78	0.42	130	47.93	0.41	70	72.29	0.40	10	96.07	0.39	30	111.67	0.39	90	134.70	0.38
189	23.21	0.43	129	48.34	0.41	69	72.69	0.40	9	96.46	0.39	31	112.06	0.39	91	135.08	0.38
188	23.63	0.42	128	48.75	0.41	68	73.09	0.40	8	96.86	0.40	32	112.44	0.38	92	135.46	0.38
187	24.06	0.43	127	49.16	0.41	67	73.49	0.40	7	97.25	0.39	33	112.83	0.39	93	135.84	0.38
186	24.49	0.43	126	49.57	0.41	66	73.89	0.40	6	97.64	0.39	34	113.22	0.39	94	136.22	0.38
185	24.92	0.43	125	49.99	0.42	65	74.29	0.40	5	98.04	0.40	35	113.61	0.39	95	136.60	0.38
184	25.34	0.42	124	50.40	0.41	64	74.68	0.39	4	98.43	0.39	36	113.99	0.38	96	136.98	0.38
183	25.77	0.43	123	50.81	0.41	63	75.08	0.40	3	98.82	0.39	37	114.38	0.39	97	137.36	0.38
182	26.20	0.43	122	51.22	0.41	62	75.48	0.40	2	99.21	0.39	38	114.77	0.39	98	137.74	0.38
181	26.62	0.42	121	51.63	0.41	61	75.88	0.40	1	99.61	0.40	39	115.15	0.38	99	138.12	0.38
180	27.05	0.43	120	52.04	0.41	60	76.28	0.40				40	115.54	0.39	100	138.50	0.38
179	27.47	0.42	119	52.45	0.41	59	76.68	0.40				41	115.93	0.39	101	138.88	0.38
178	27.90	0.43	118	52.86	0.41	58	77.07	0.39				42	116.31	0.38	102	139.26	0.38
177	28.32	0.42	117	53.27	0.41	57	77.47	0.40				43	116.70	0.39	103	139.63	0.37
176	28.74	0.42	116	53.68	0.41	56	77.87	0.40				44	117.08	0.38	104	140.01	0.38
175	29.17	0.43	115	54.09	0.41	55	78.27	0.40				45	117.47	0.39	105	140.39	0.38
174	29.59	0.42	114	54.49	0.40	54	78.66	0.39				46	117.86	0.39	106	140.77	0.38
173	30.01	0.42	113	54.90	0.41	53	79.06	0.40				47	118.24	0.38	107	141.15	0.38
172	30.43	0.42	112	55.31	0.41	52	79.46	0.40				48	118.63	0.39	108	141.52	0.37
171	30.86	0.43	111	55.72	0.41	51	79.85	0.39				49	119.01	0.38	109	141.90	0.38
170	31.28	0.42	110	56.13	0.41	50	80.25	0.40				50	119.40	0.39	110	142.28	0.38
169	31.70	0.42	109	56.54	0.41	49	80.65	0.40				51	119.78	0.38	111	142.66	0.38
168	32.12	0.42	108	56.94	0.40	48	81.04	0.39				52	120.17	0.39	112	143.04	0.38
167	32.54	0.42	107	57.35	0.41	47	81.44	0.40				53	120.55	0.38	113	143.41	0.37
166	32.96	0.42	106	57.76	0.41	46	81.83	0.39				54	120.94	0.39	114	143.79	0.38
165	33.38	0.42	105	58.17	0.41	45	82.23	0.40				55	121.32	0.38	115	144.17	0.38
164	33.80	0.42	104	58.57	0.40	44	82.63	0.40				56	121.70	0.38	116	144.55	0.38
163	34.22	0.42	103	58.98	0.41	43	83.02	0.39				57	122.09	0.39	117	144.93	0.38
162	34.64	0.42	102	59.39	0.41	42	83.42	0.40				58	122.47	0.38	118	145.30	0.37
161	35.06	0.42	101	59.79	0.40	41	83.81	0.39				59	122.86	0.39	119	145.68	0.38

Test Conductor Signature _____ Date _____

TABLE XVIII Temperature Vs. Resistance Table

For European Curve, Alpha = .00385 — 1° Celsius Increments

°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.	°C	Ohm	Diff.
+120	146.06	0.38	+180	168.47	0.37	+240	190.46	0.36	+300	212.03	0.36	+360	233.19	0.35	+420	253.93	0.34
121	146.44	0.38	181	168.84	0.37	241	190.82	0.36	301	212.39	0.36	361	233.54	0.35	421	254.27	0.34
122	146.81	0.37	182	169.21	0.37	242	191.18	0.36	302	212.74	0.35	362	233.89	0.35	422	254.61	0.34
123	147.19	0.38	183	169.58	0.37	243	191.55	0.37	303	213.10	0.36	363	234.23	0.34	423	254.95	0.34
124	147.56	0.37	184	169.95	0.37	244	191.91	0.36	304	213.45	0.35	364	234.58	0.35	424	255.29	0.34
125	147.94	0.38	185	170.32	0.37	245	192.27	0.36	305	213.81	0.36	365	234.93	0.35	425	255.64	0.35
126	148.32	0.38	186	170.68	0.36	246	192.63	0.36	306	214.16	0.35	366	235.28	0.35	426	255.98	0.34
127	148.69	0.37	187	171.05	0.37	247	192.99	0.36	307	214.52	0.36	367	235.63	0.35	427	256.32	0.34
128	149.07	0.38	188	171.42	0.37	248	193.36	0.37	308	214.87	0.35	368	235.97	0.34	428	256.66	0.34
129	149.44	0.37	189	171.79	0.37	249	193.72	0.36	309	215.23	0.36	369	236.32	0.35	429	257.00	0.34
130	149.82	0.38	190	172.16	0.37	250	194.08	0.36	310	215.58	0.35	370	236.67	0.35	430	257.34	0.34
131	150.20	0.38	191	172.53	0.37	251	194.44	0.36	311	215.94	0.36	371	237.02	0.35	431	257.68	0.34
132	150.57	0.37	192	172.90	0.37	252	194.80	0.36	312	216.29	0.35	372	237.37	0.35	432	258.02	0.34
133	150.95	0.38	193	173.26	0.36	253	195.17	0.37	313	216.65	0.36	373	237.71	0.34	433	258.36	0.34
134	151.32	0.37	194	173.63	0.37	254	195.53	0.36	314	217.00	0.35	374	238.06	0.35	434	258.70	0.34
135	151.70	0.38	195	174.00	0.37	255	195.89	0.36	315	217.36	0.36	375	238.41	0.35	435	259.05	0.35
136	152.07	0.37	196	174.37	0.37	256	196.25	0.36	316	217.71	0.35	376	238.76	0.35	436	259.39	0.34
137	152.45	0.38	197	174.74	0.37	257	196.61	0.36	317	218.07	0.36	377	239.11	0.35	437	259.73	0.34
138	152.82	0.37	198	175.10	0.36	258	196.98	0.37	318	218.42	0.35	378	239.45	0.34	438	260.07	0.34
139	153.20	0.38	199	175.47	0.37	259	197.34	0.36	319	218.78	0.36	379	239.80	0.35	439	260.41	0.34
140	153.57	0.37	200	175.84	0.37	260	197.70	0.36	320	219.13	0.35	380	240.15	0.35	440	260.75	0.34
141	153.95	0.38	201	176.21	0.37	261	198.06	0.36	321	219.48	0.35	381	240.50	0.35	441	261.09	0.34
142	154.32	0.37	202	176.57	0.36	262	198.42	0.36	322	219.84	0.36	382	240.84	0.34	442	261.43	0.34
143	154.70	0.38	203	176.94	0.37	263	198.78	0.36	323	220.19	0.35	383	241.19	0.35	443	261.77	0.34
144	155.07	0.37	204	177.31	0.37	264	199.14	0.36	324	220.54	0.35	384	241.53	0.34	444	262.11	0.34
145	155.45	0.38	205	177.68	0.37	265	199.50	0.36	325	220.90	0.36	385	241.88	0.35	445	262.45	0.34
146	155.82	0.37	206	178.04	0.36	266	199.86	0.36	326	221.25	0.35	386	242.23	0.35	446	262.78	0.33
147	156.20	0.38	207	178.41	0.37	267	200.22	0.36	327	221.60	0.35	387	242.57	0.34	447	263.12	0.34
148	156.57	0.37	208	178.78	0.37	268	200.58	0.36	328	221.95	0.35	388	242.92	0.35	448	263.46	0.34
149	156.95	0.38	209	179.14	0.36	269	200.94	0.36	329	222.31	0.36	389	243.26	0.34	449	263.80	0.34
150	157.32	0.37	210	179.51	0.37	270	201.30	0.36	330	222.66	0.35	390	243.61	0.35	450	264.14	0.34
151	157.69	0.37	211	179.88	0.37	271	201.66	0.36	331	223.01	0.35	391	243.96	0.35	451	264.48	0.34
152	158.07	0.38	212	180.24	0.36	272	202.02	0.36	332	223.36	0.35	392	244.30	0.34	452	264.82	0.34
153	158.44	0.37	213	180.61	0.37	273	202.37	0.35	333	223.72	0.36	393	244.65	0.35	453	265.15	0.33
154	158.81	0.37	214	180.97	0.36	274	202.73	0.36	334	224.07	0.35	394	244.99	0.34	454	265.49	0.34
155	159.19	0.38	215	181.34	0.37	275	203.09	0.36	335	224.24	0.35	395	245.34	0.35	455	265.83	0.34
156	159.56	0.37	216	181.71	0.37	276	203.45	0.36	336	224.77	0.35	396	245.68	0.34	456	266.17	0.34
157	159.93	0.37	217	182.07	0.36	277	203.81	0.36	337	225.12	0.35	397	246.03	0.35	457	266.51	0.34
158	160.30	0.37	218	182.44	0.37	278	204.16	0.35	338	225.48	0.36	398	246.37	0.34	458	266.84	0.33
159	160.68	0.38	219	182.80	0.36	279	204.52	0.36	339	225.83	0.35	399	246.72	0.35	459	267.18	0.34
160	161.05	0.37	220	183.17	0.37	280	204.88	0.36	340	226.18	0.35	400	247.06	0.34	460	267.52	0.34
161	161.42	0.37	221	183.54	0.37	281	205.24	0.36	341	226.53	0.35	401	247.40	0.34	461	267.86	0.34
162	161.79	0.37	222	183.90	0.36	282	205.60	0.36	342	226.88	0.35	402	247.75	0.35	462	268.19	0.33
163	162.16	0.37	223	184.27	0.37	283	205.95	0.35	343	227.23	0.35	403	248.09	0.34	463	268.53	0.34
164	162.53	0.37	224	184.63	0.36	284	206.31	0.36	344	227.58	0.35	404	248.44	0.35	464	268.87	0.34
165	162.91	0.38	225	185.00	0.37	285	206.67	0.36	345	227.94	0.36	405	248.78	0.34	465	269.21	0.34
166	163.28	0.37	226	185.36	0.36	286	207.03	0.36	346	228.29	0.35	406	249.12	0.34	466	269.54	0.33
167	163.65	0.37	227	185.73	0.37	287	207.39	0.36	347	228.64	0.35	407	249.47	0.35	467	269.88	0.34
168	164.02	0.37	228	186.09	0.36	288	207.74	0.35	348	228.99	0.35	408	249.81	0.34	468	270.22	0.34
169	164.39	0.37	229	186.46	0.37	289	208.10	0.36	349	229.34	0.35	409	250.16	0.35	469	270.55	0.33
170	164.76	0.37	230	186.82	0.36	290	208.46	0.36	350	229.69	0.35	410	250.50	0.34	470	270.89	0.34
171	165.13	0.37	231	187.18	0.36	291	208.82	0.36	351	230.04	0.35	411	250.84	0.34	471	271.23	0.34
172	165.50	0.37	232	187.55	0.37	292	209.17	0.35	352	230.39	0.35	412	251.19	0.35	472	271.56	0.33
173	165.87	0.37	233	187.91	0.36	293	209.53	0.36	353	230.74	0.35	413	251.53	0.34	473	271.90	0.34
174	166.24	0.37	234	188.28	0.37	294	209.89	0.36	354	231.09	0.35	414	251.87	0.34	474	272.23	0.33
175	166.62	0.38	235	188.64	0.36	295	210.25	0.36	355	231.44	0.35	415	252.22	0.35	475	272.57	0.34
176	166.99	0.37	236	189.00	0.36	296	210.60	0.35	356	231.79	0.35	416	252.56	0.34	476	272.91	0.34
177	167.36	0.37	237	189.37	0.37	297	210.96	0.36	357	232.14	0.35	417	252.90	0.34	477	273.24	0.33
178	167.73	0.37	238	189.73	0.36	298	211.32	0.36	358	232.49	0.35	418	253.24	0.34	478	273.58	0.34
179	168.10	0.37	239	190.10	0.37	299	211.67	0.35	359	232.84	0.35	419	253.59	0.35	479	273.91	0.33

Test Conductor Signature _____ Date _____

6.0 TEST CONDUCTOR'S REPORT

6.1 Were any procedure changes or deviations made to the test and DCCF/PDR initiated? (Attach copies if applicable)
Yes____ No____

6.2 Were all steps successfully completed as stated in test?
Yes____ No____

6.3 If the answer to 6.2 is NO, notify Department Supervisor and list conditions and/or PTR number(s):

_____

6.4 Test completed except for items noted in 6.3

_____ _____
Test Conductor Date

6.5 Test sheets and data sheets reviewed and approved except for items noted in 6.3

_____ _____
Department Representative Date

7.0 DEPARTMENT SUPERVISOR'S/TEST CONDUCTOR'S REVIEW
(If the answer to 6.2 is YES, sections 7.0 and 8.0 are not applicable go to Section 9.0)

7.1 Does the failure described in 6.3 require any action or impose any limit to operation per the applicable LCO(s)?
Yes____ No____ N/A____

7.2 Applicable LCO(s)_____

Action or Limit_____

7.3 Is the reason test is not being completed at this time due to plant or equipment status?
Yes____ No____ N/A____

7.4 If the answer to 7.3 is YES, list condition(s) and/or PTR number(s):

_____

7.5 Is retest necessary for items listed in 6.3 and/or 7.4?
Yes____ No____ N/A____

7.6 If the answer to 7.5 is YES; list specific section(s) or step(s) to be retested.

_____

_____ _____
Dept. Supervisor/Test Conductor Date

8.0 RETEST SECTION
(If the answer to 7.5 is NO go to Section 9.0)

8.1 Verify satisfactory retest of section(s) or step(s) listed in 7.6

_____ _____
Retest Conductor Date

8.2 Retest reviewed.

_____ _____
Department Representative Date

9.0 APPROVALS

9.1 Test results approved. Satisfactory results confirm compliance with applicable LCO(s).

_____ _____
Department Supervisor Date

9.2 Notification of satisfactory test results and test conclusion:

_____ _____
Shift Supervisor Date

9.3 Requires Station Manager evaluation:

_____ _____
Department Supervisor Date

9.4 _____ _____
Station Manager Date

10.0 DATA SHEETS RECEIVED, VERIFIED SECTION 9.0 COMPLETE, AND SURVEILLANCE TEST RECORDS UPDATED.

_____ _____
Scheduling Technician Date