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**Pacific Northwest Laboratory
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STATUS OF IRRADIATIONS PERFORMED BY
FUEL & TARGET IRRADIATION TECHNOLOGY FOR
BNW AS OF MAY 31, 1970

L. V. Barker

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This report itemizes the irradiations performed by Fuel and Target Irradiation Technology for BNW. It lists the material being irradiated, awaiting disposition and material shipped during the report period. An explanation of the various columns in the report follows:

Identification

- a. TISR No. - This is the official number assigned by Fuel and Target Irradiation Technology to an experiment for purposes of identification.
- b. Request Number - Customer experiment identification number, if any.
- c. Material - The principle target material, if known, abbreviated or its chemical symbol in capital letters.
- d. Piece Number - Individual sample or assembly identification.

Operating Time (Days) - The number of full-power operating days the sample has been exposed.

CMK Absorbed - The total cmk absorbed by the sample. Does not include the facility.

Charge Date - Date and time sample charged into reactor or date and time reactor reached one-half equilibrium level if sample was charged during a reactor outage.

Location

- a. Facility - Test facility or process tube and reactor containing the experiment.
- b. Test Hole Position - Sample position in-reactor relative to a process tube.
- c. Position Factor - Location of sample in relation to front-to-rear cosine flux distribution. (This factor only applies to front-to-rear irradiations.)

NOTE: The actual shape may deviate from a cosine curve due to local perturbations. The actual shape will be provided upon request.

Exposure to Date - NVT - The total thermal neutron exposure per square centimeter received to date. This number is calculated from facility unperturbed flux and reactor operating time.

Discharge, Date and Time - Date and time samples were removed from the active portion of the reactor or date and time reactor was down to one-half equilibrium level if sample was discharged during a reactor outage.

Shipping Date - Date samples were shipped to the customer or otherwise disposed of.

L. V. Barker, Supervisor
Irradiation Services Unit

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LVB:

IDENTIFICATION				OPERATING TIME (DAYS)	C M K ASSURED	CHARGE		LOCATION			EXPOSURE TO DATE MVT	DISCHARGE		SHIPPING DATE
TIR NO.	REQUEST NUMBER	MATERIAL	PIECE NO.			DATE	TIME	FACILITY	TEST HOLE POSITION	POSITION FACTOR		DATE	TIME	
THE FOLLOWING OPERATIONS ARE IN PROGRESS:														
177	PRK-177	GRAPH	00-0	310, 3862		01-25-69	0856	48TH-KE	0-4366	1.000	3, 4-21			
177	PRK-177	GRAPH	0140	310, 3862		01-25-69	0856	48TH-KE	0-4379	1.000	3, 4-21			
177	PRK-177	GRAPH	0143	310, 3862		01-25-69	0856	48TH-KE	0-4376	1.000	3, 4-21			
177	PRK-177	GRAPH	0188	310, 3862		01-25-69	0856	48TH-KE	0-4363	1.000	3, 4-21			
177	PRK-177	GRAPH	0189	310, 3862		01-25-69	0856	48TH-KE	0-4357	1.000	3, 4-21			
177	PRK-177	GRAPH	0190	310, 3862		01-25-69	0856	48TH-KE	0-4373	1.000	3, 4-21			
177	PRK-177	GRAPH	0191	310, 3862		01-25-69	0856	48TH-KE	0-4369	1.000	3, 4-21			
177	PRK-177	GRAPH	0192	310, 3862		01-25-69	0856	48TH-KE	0-4364	1.000	3, 4-21			
177	PRK-177	GRAPH	0193	310, 3862		01-25-69	0856	48TH-KE	0-4360	1.000	3, 4-21			
236	PRK-236	SS	IV43	13, 3319		05-17-70	0654	24TH-KE		1.000	1, 1-20			
243	PRK-243	FLASTIC	0184	53, 4393		03-23-70	0025	34TH-KE		1.000	4, 5-20			
243	PRK-243	FLASTIC	0185	53, 4393		03-23-70	0025	34TH-KE		1.000	4, 5-20			
381	PRK-381	U	0007	53, 4393		03-23-70	0025	0665-KE		1.175	9, 5-18			
381	PRK-381	U	0308	53, 4393		03-23-70	0025	0665-KE		1.175	9, 5-18			
389	PRK-389	ZK	0005	13, 3319		05-17-70	0654	30TH-KE		1.000	1, 1-20			

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IDENTIFICATION				OPERATING TIME (DAYS)	C M K ABSORBED	CHARGE			LOCATION			EXPOSURE TO DATE NVT	DISCHARGE		SHIPPING DATE	
TSR NO.	REQUEST NUMBER	MATERIAL	PIECE NO.			DATE	TIME	FACILITY	TEST HOLE POSITION	POSITION FACTOR	DATE		TIME			
THE FOLLOWING IRRADIATIONS ARE ANALYTICAL DISPOSITION:																
177		GRAPH	A0A6	508.4286		09-22-67	0608	3ATH-KE	0-2984	1.000	4.5+21	07-03-69	1353			
177		GRAPH	A0D2	508.4286		09-22-67	0608	3ATH-KE	0-2977	1.000	4.5+21	07-03-69	1353			
177		GRAPH	A0D3	508.4286		09-22-67	0508	3ATH-KE	0-2981	1.000	4.5+21	07-03-69	1353			
243	BM-243	PLASTIC	0186	40.1074		03-23-70	0025	3ATH-KE		1.000	3.4+20	05-09-70	1550			
243	BM-243	PLASTIC	0190	40.1074		03-23-70	0025	3ATH-KE		1.000	3.4+20	05-09-70	1550			
309	BM-309	ZIRCON	0004	28.6041		04-11-70	0120	3ATH-KE		1.000	2.4+20	05-09-70	1550			

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IDENTIFICATION				OPERATING TIME (DAYS)	C M K ABSORBED	CHARGE	LOCATION			EXPOSURE TO DATE NVT	DISCHARGE		SHIPPING DATE	
TGR NO.	REQUEST NUMBER	MATERIAL	PIECE NO.				FACILITY	TEST HOLE POSITION	POSITION FACTOR		DATE	TIME		
THE FOLLOWING IRRADIATIONS WERE SHIPPED DURING THE MONTH														
172	BNW-172	SALTS	2371	.0208		05-05-70	0815	2DTH-KE		1.000	1.8+17	05-05-70	0845	05-06-70
172	BNW-172	SALTS	2372	.0208		05-05-70	0815	2DTH-KE		1.000	1.8+17	05-05-70	0845	05-06-70
172	BNW-172	BIO	2379	.0208		05-09-70	1300	2DTH-KE		1.000	1.8+17	05-09-70	1330	05-12-70
172	BNW-172	BIO	2380	.0200		05-09-70	1300	2DTH-KE		1.000	1.8+17	05-09-70	1330	05-12-70
172	BNW-172	BIO	2381	.0208		05-09-70	1300	2DTH-KE		1.000	1.8+17	05-09-70	1330	05-12-70
172	BNW-172	BIO	2382	.0208		05-09-70	1300	2DTH-KE		1.000	1.8+17	05-09-70	1330	05-12-70
172	BNW-172	BIO	2383	.0208		05-09-70	1300	2DTH-KE		1.000	1.8+17	05-09-70	1330	05-12-70
172	BNW-172	BIO	2385	.0208		05-09-70	1400	2DTH-KE		1.000	1.8+17	05-09-70	1430	05-12-70
172	BNW-172	BIO	2386	.0208		05-09-70	1400	2DTH-KE		1.000	1.8+17	05-09-70	1430	05-12-70
172	BNW-172	BIO	2387	.0208		05-09-70	1400	2DTH-KE		1.000	1.8+17	05-09-70	1430	05-12-70
172	BNW-172	BIO	2388	.0208		05-09-70	1400	2DTH-KE		1.000	1.8+17	05-09-70	1430	05-12-70
172	BNW-172	BIO	2389	.0208		05-09-70	1400	2DTH-KE		1.000	1.8+17	05-09-70	1430	05-12-70
172	BNW-172	BIO	2390	.0208		05-23-70	1020	2DTH-KE		1.000	1.8+17	05-23-70	1050	05-25-70
172	BNW-172	ZN	2393	.0208		05-23-70	1020	2DTH-KE		1.000	1.8+17	05-23-70	1050	05-25-70
172	BNW-172	ZN	2394	.0208		05-28-70	1053	2DTH-KE		1.000	8.5+18	05-28-70	1153	06-01-70
172	BNW-172	FILTER	2396	1.0000		05-28-70	1053	2DTH-KE		1.000	8.5+18	05-28-70	1153	06-01-70
172	BNW-172	FILTER	2397	1.0000		05-28-70	1053	2DTH-KE		1.000	8.5+18	05-28-70	1153	06-01-70
172	BNW-172	FILTER	2398	1.0000		05-28-70	1053	2DTH-KE		1.000	8.5+18	05-28-70	1153	06-01-70
172	BNW-172	FILTER	2399	1.0000		05-28-70	1053	2DTH-KE		1.000	8.5+18	05-28-70	1153	06-01-70
172	BNW-172	FILTER	2400	1.0000		05-28-70	1053	2DTH-KE		1.000	8.5+18	05-28-70	1153	06-01-70
172	BNW-172	BIO	2403	.0208		05-30-70	0920	2DTH-KE		1.000	1.8+17	05-30-70	0950	06-01-70
172	BNW-172	BIO	2404	.0208		05-30-70	0920	2DTH-KE		1.000	1.8+17	05-30-70	0950	06-01-70
172	BNW-172	BIO	2405	.0208		05-30-70	0920	2DTH-KE		1.000	1.8+17	05-30-70	0950	06-01-70
172	BNW-172	BIO	2406	.0208		05-30-70	0920	2DTH-KE		1.000	1.8+17	05-30-70	0950	06-01-70
172	BNW-172	BIO	2407	.0208		05-30-70	0920	2DTH-KE		1.000	1.8+17	05-30-70	0950	06-01-70
172	BNW-172	BIO	2408	.0208		05-30-70	0920	2DTH-KE		1.000	1.8+17	05-30-70	0950	06-01-70
172	BNW-172	BIO	2409	.0208		05-30-70	1030	2DTH-KE		1.000	1.8+17	05-30-70	1100	06-01-70
172	BNW-172	BIO	2410	.0208		05-30-70	1030	2DTH-KE		1.000	1.8+17	05-30-70	1100	06-01-70
172	BNW-172	BIO	2411	.0208		05-30-70	1030	2DTH-KE		1.000	1.8+17	05-30-70	1100	06-01-70
172	BNW-172	BIO	2412	.0208		05-30-70	1030	2DTH-KE		1.000	1.8+17	05-30-70	1100	06-01-70
172	BNW-172	BIO	2413	.0208		05-30-70	1030	2DTH-KE		1.000	1.8+17	05-30-70	1100	06-01-70
172	BNW-172	BIO	2414	.0208		05-30-70	1030	2DTH-KE		1.000	1.8+17	05-30-70	1100	06-01-70
172	BNW-172	BIO	2684	.0208		05-09-70	1300	2DTH-KE		1.000	1.8+17	05-09-70	1330	05-12-70
172	BNW-172	SALTS	2370	.0417		05-03-70	0905	3ATH-KE		1.000	1.5+18	05-04-70	0905	05-18-70
172	BNW-172	BIO	2373	.0208		05-05-70	1041	3ATH-KE		1.000	7.8+16	05-05-70	1141	05-06-70
172	BNW-172	FLAS	2374	.0208		05-06-70	0948	3ATH-KE		1.000	3.2+16	05-06-70	1018	05-07-70
172	BNW-172	FLAS	2375	.0208		05-06-70	1022	3ATH-KE		1.000	3.2+16	05-06-70	1052	05-07-70
172	BNW-172	FLAS	2376	.0208		05-06-70	1116	3ATH-KE		1.000	3.2+16	05-06-70	1146	05-07-70

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IDENTIFICATION				OPERATING TIME (DAYS)	C M K ABSORBED	CHARGE		LOCATION			DISCHARGE		SHIPPING DATE
TISR NO.	REQUEST NUMBER	MATERIAL	PIECE NO.			DATE	TIME	FACILITY	TEST HOLE POSITION	POSITION FACTOR	EXPOSURE TO DATE NVT	DATE	
THE FOLLOWING IRRADIATIONS WERE SHIPPED DURING THE MONTH													
172	BNW-172	FLAS	2377	1.0000		05-07-70	0920	3ATH-KE		1.000	1.5+18	05-08-70	0920
172	BNW-172	FLAS	2378	1.0000		05-07-70	0920	3ATH-KE		1.000	1.7+18	05-08-70	0920
172	BNW-172	SALTS	2391	1.0069		05-20-70	0935	3ATH-KE		1.000	1.5+18	05-21-70	0945
172	BNW-172	SALTS	2392	1.0069		05-20-70	0935	3ATH-KE		1.000	1.7+18	05-21-70	0945
172	BNW-172	SALTS	2395	1.0000		05-22-70	1320	3ATH-KE		1.000	1.4+18	05-23-70	1320
172	BNW-172	SALTS	2401	2.0000		05-30-70	0900	3ATH-KE		1.000	3.0+18	06-01-70	0900
172	BNW-172	SALTS	2402	2.0000		05-30-70	0900	3ATH-KE		1.000	2.7+18	06-01-70	0900
184	BNW-184	VAR	3540	.9097		05-03-70	0855	2DTH-KE		1.000	7.7+18	05-04-70	0645
184	BNW-184	VAR	3541	.9097		05-03-70	0855	2DTH-KE		1.000	7.7+18	05-04-70	0645
184	BNW-184	VAR	3542	.8646		05-04-70	1000	2DTH-KE		1.000	7.3+18	05-05-70	0645
184	BNW-184	VAR	3543	.8646		05-04-70	1000	2DTH-KE		1.000	7.3+18	05-05-70	0645
184	BNW-184	VAR	3544	.9167		05-06-70	0845	2DTH-KE		1.000	7.8+18	05-07-70	0645
184	BNW-184	VAR	3545	.9167		05-06-70	0845	2DTH-KE		1.000	7.8+18	05-07-70	0645
184	BNW-184	VAR	3546	.9201		05-20-70	0840	2DTH-KE		1.000	1.6+18	05-21-70	0645
184	BNW-184	VAR	3547	.9201		05-20-70	0840	2DTH-KE		1.000	1.7+18	05-21-70	0645
184	BNW-184	VAR	3548	.8785		05-21-70	0940	2DTH-KE		1.000	1.5+18	05-22-70	0645
184	BNW-184	VAR	3549	.8785		05-21-70	0940	2DTH-KE		1.000	1.6+18	05-22-70	0645
184	BNW-184	VAR	3550	.8646		05-24-70	1000	2DTH-KE		1.000	1.5+18	05-25-70	0645
184	BNW-184	VAR	3551	.8646		05-24-70	1000	2DTH-KE		1.000	1.6+18	05-25-70	0645
184	BNW-184	VAR	3552	.8646		05-25-70	1000	2DTH-KE		1.000	7.3+18	05-26-70	0645
184	BNW-184	VAR	3553	.8646		05-25-70	1000	2DTH-KE		1.000	7.3+18	05-26-70	0645
184	BNW-184	VAR	3554	.8632		05-26-70	1002	2DTH-KE		1.000	7.3+18	05-27-70	0645
184	BNW-184	VAR	3555	.8632		05-26-70	1002	2DTH-KE		1.000	7.3+18	05-27-70	0645
184	BNW-184	VAR	3556	.8715		05-27-70	0955	2DTH-KE		1.000	7.4+18	05-28-70	0650
184	BNW-184	VAR	3557	.8715		05-27-70	0955	2DTH-KE		1.000	7.4+18	05-28-70	0650
184	BNW-184	VAR	3558	.9062		05-31-70	0900	2DTH-KE		1.000	7.7+18	06-01-70	0645
184	BNW-184	VAR	3559	.9062		05-31-70	0900	2DTH-KE		1.000	7.7+18	06-01-70	0645
184	BNW-184	VAR	6742	.0007		05-07-70	0902	3ATH-KE		1.000	1.1+15	05-07-70	0903
184	BNW-184	VAR	6743	.0007		05-20-70	0835	3ATH-KE		1.000	1.1+15	05-20-70	0836
271	BNW-271	NEP	0151	4.7292		04-29-70	1315	2DTH-KE		1.000	4.0+19	05-04-70	0645
271	BNW-271	PV	0152	.0139		05-08-70	0850	2DTH-KE		1.000	1.2+17	05-08-70	0910
271	BNW-271	DEPU	0153	2.7326		05-23-70	1310	2DTH-KE		1.000	2.3+19	05-26-70	0645
271	BNW-271	NA	0154	.0139		05-25-70	0835	2DTH-KE		1.000	1.2+17	05-25-70	0655
271	BNW-271	NA	0155	.6562		05-26-70	1500	2DTH-KE		1.000	5.6+18	05-27-70	0645
391	BNW-391	LO	0006	1.8160		05-25-70	1020	28TH-KE		1.000	2.2+19	05-27-70	0555

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