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**Pacific Northwest Laboratory
Operated for the U.S. Department of Energy
by Battelle Memorial Institute**



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STATUS OF IRRADIATIONS PERFORMED BY
FUEL AND TARGET IRRADIATION TECHNOLOGY FOR BNW
AS OF DECEMBER 31, 1969

L. V. Barker

~~Excluded from automatic downgrading and declassification.~~

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This report itemizes the irradiations performed by Fuel & Target Irradiation Tech. for Battelle-Northwest. 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 & 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

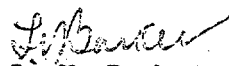
- a. Facility - Test facility or process tube and reactor containing the experiment.
- b. Test Hole Position - Sample position in-reactor relative to a process tube.
- c. Position Factor - Location of sample in relation to front-to-rear cosine flux distribution. (This factor only applies to front-to-rear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

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TBR NO.	IDENTIFICATION			OPERATING TIME (DAYS)	CMK ABSORBED	CHARGE		LOCATION			DISCHARGE		SHIPPING DATE
	REQUEST NUMBER	MATERIAL	PIECE NO.			DATE	TIME	FACILITY	TEST HOLE POSITION	POSITION FACTOR	EXPOSURE TO DATE NVT	DATE	
THE FOLLOWING IRRADIATIONS ARE IN PROGRESS													
177	EW-177	GRAPH	0176	229.2677		01-25-69	0856	48TH-KE	0-4366	1.000	2.5+21		
177	EW-177	GRAPH	0140	229.2677		01-25-69	0856	48TH-KE	0-4379	1.000	2.5+21		
177	EW-177	GRAPH	0143	229.2677		01-25-69	0856	48TH-KE	0-4376	1.000	2.5+21		
177	EW-177	GRAPH	0186	229.2677		01-25-69	0856	48TH-KE	0-4363	1.000	2.5+21		
177	EW-177	GRAPH	0189	229.2677		01-25-69	0856	48TH-KE	0-4357	1.000	2.5+21		
177	EW-177	GRAPH	0190	229.2677		01-25-69	0856	48TH-KE	0-4373	1.000	2.5+21		
177	EW-177	GRAPH	0191	229.2677		01-25-69	0856	48TH-KE	0-4369	1.000	2.5+21		
177	EW-177	GRAPH	0192	229.2677		01-25-69	0856	48TH-KE	0-4354	1.000	2.5+21		
177	EW-177	GRAPH	0195	229.2677		01-25-69	0856	48TH-KE	0-4360	1.000	2.5+21		
236		SS	1VX6	413.6272		06-11-66	1600	30TH-KW		1.000	4.6+21		
236		ZINC	4-39	534.7660		01-14-66	2019	30TH-KW		1.000	6.2+21		
236	EW-236	SS	4-40	41.5180		09-07-69	1740	30TH-KW		1.000	1.0+21		
236	EW-236	SS	4-41	63.5000		11-26-69	1200	30TH-KW		1.000	2.8+20		
236	EW-236	SS	4-42	63.5000		11-26-69	1200	30TH-KW		1.000	2.8+20		
243	EW-243	SS	4-36	150.5332		05-29-69	2312	38TH-KW		1.000	1.7+21		
243	EW-243	RE	0184	5.3956		12-26-69	0930	40TH-KW		1.000	5.9+19		
243	EW-243	RE	0185	5.3956		12-26-69	0930	40TH-KW		1.000	5.9+19		
243	EW-243	RE	0186	5.3956		12-26-69	0930	40TH-KW		1.000	5.9+19		
243	EW-243	RE	0187	5.3956		12-26-69	0930	40TH-KW		1.000	5.9+19		
243	EW-243	RE	0188	5.3956		12-26-69	0930	40TH-KW		1.000	5.9+19		
243	EW-243	RE	0190	5.3956		12-26-69	0930	40TH-KW		1.000	5.9+19		
364	EW-364	BORCAR	0085	170.6888		05-29-69	2312	38TH-KW		1.000	1.9+21		
364	EW-364	BORCAR	0086	170.6888		05-29-69	2312	38TH-KW		1.000	1.9+21		
394	EW-394	BORCAR	0073	173.4500		04-21-69	2113	30TH-KE		1.000	1.9+21		

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TISR NO.	IDENTIFICATION			OPERATING TIME (DAYS)	C M K ASSORBED	CHARGE		LOCATION		EXPOSURE TO DATE NVT	DISCHARGE		SHIPPING DATE
	REQUEST NUMBER	MATERIAL	PIECE NO.			DATE	TIME	FACILITY	TEST HOLE POSITION		POSITION FACTOR	DATE	
172	1004-172	SEASLT	2296	1,0000		12-20-69	1330	48TH-KW		7,8+17	12-27-69	1330	
172	1004-172	SEASLT	2297	1,0000		12-26-69	1330	48TH-KW		1,1+18	12-27-69	1330	
177		GRAPH	A0A6	508,4286		09-22-67	0608	3ATH-XE	0-2984	4,5+21	07-03-69	1353	
177		GRAPH	A0D2	508,4286		05-22-67	0608	3ATH-XE	0-2977	4,5+21	07-03-69	1353	
177		GRAPH	A0D3	508,4286		09-22-67	0608	3ATH-XE	0-2981	4,5+21	07-03-69	1353	
243		CARBON	0178	205,4133		10-24-68	1345	40TH-KW		2,3+21	10-03-69	1020	

THE FOLLOWING IRRADIATIONS ARE AWAITING DISPOSITION.

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TSR NO.	IDENTIFICATION		OPERATING TIME (DAYS)	CMK ASSIGNED	DATE	TIME	FACILITY	LOCATION		POSITION FACTOR	DISCHARGE		SHIPPING DATE
	REQUEST NUMBER	MATERIAL						PIECE NO.	TEST HOLE POSITION		DATE	TIME	
THE FOLLOWING IRRADIATIONS WERE SHIPPED DURING THE MONTH													
172	EW-172	ICE	.0174		12-02-69	0919	48TH-KW		1.000		12-02-69	0944	12-03-69
172	EW-172	ICE	.0174		12-02-69	0945	48TH-KW		1.000		12-02-69	1010	12-03-69
172	EW-172	ICE	.0174		12-02-69	1011	48TH-KW		1.000		12-02-69	1036	12-03-69
172	EW-172	SEASLT	1.0000		12-03-69	1245	48TH-KW		1.000		12-04-69	1245	12-09-69
172	EW-172	SEASLT	1.0000		12-03-69	1245	48TH-KW		1.000		12-04-69	1245	12-09-69
172	EW-172	FLASTIC	.0208		12-09-69	0622	48TH-KW		1.000		12-09-69	0852	12-10-69
172	EW-172	FLASTIC	2.0000		12-10-69	1300	48TH-KW		1.000		12-12-69	1300	12-19-69
172	EW-172	SALTS	2.0000		12-10-69	1300	48TH-KW		1.000		12-12-69	1300	12-19-69
172	EW-172	SALTS	1.0000		12-15-69	1305	48TH-KW		1.000		12-16-69	1305	12-22-69
172	EW-172	VAR	1.0000		12-15-69	1305	48TH-KW		1.000		12-16-69	1305	12-22-69
172	EW-172	VAR	1.0000		12-15-69	1305	48TH-KW		1.000		12-16-69	1305	12-22-69
172	EW-172	SEASLT	2.0000		12-24-69	0930	48TH-KW		1.000		12-26-69	0930	12-29-69
172	EW-172	SEASLT	2.0000		12-24-69	0930	48TH-KW		1.000		12-26-69	0930	12-29-69
177	EW-177	GRAPH	97.6923		07-24-69	0949	3DTH-KW		1.000		11-21-69	1850	11-27-69
184	EW-184	VAR	.9271		12-02-69	0830	2ATH-KW		1.000		12-03-69	0645	12-03-69
184	EW-184	VAR	.9271		12-02-69	0830	2ATH-KW		1.000		12-03-69	0645	12-03-69
184	EW-184	VAR	.9305		12-04-69	0830	2ATH-KW		1.000		12-05-69	0650	12-05-69
184	EW-184	VAR	.9097		12-07-69	0855	2ATH-KW		1.000		12-08-69	0845	12-08-69
184	EW-184	VAR	.9097		12-07-69	0855	2ATH-KW		1.000		12-08-69	0845	12-08-69
184	EW-184	VAR	.8264		12-09-69	1055	2ATH-KW		1.000		12-10-69	0645	12-10-69
184	EW-184	VAR	.8611		12-11-69	1005	2ATH-KW		1.000		12-12-69	0645	12-12-69
184	EW-184	VAR	.8854		12-14-69	0930	2ATH-KW		1.000		12-15-69	0645	12-15-69
184	EW-184	VAR	.8437		12-15-69	1030	2ATH-KW		1.000		12-16-69	0645	12-16-69
184	EW-184	VAR	.8437		12-15-69	1030	2ATH-KW		1.000		12-16-69	0645	12-16-69
184	EW-184	VAR	.9305		12-21-69	0830	2ATH-KW		1.000		12-22-69	0650	12-22-69
184	EW-184	VAR	.0014		12-06-69	0911	48TH-KW		1.000		12-06-69	0913	12-06-69
184	EW-184	PLASTIC	.0014		12-14-69	0920	48TH-KW		1.000		12-14-69	0922	12-15-69
184	EW-184	PLASTIC	.0014		12-17-69	0910	48TH-KW		1.000		12-17-69	0912	12-18-69
271	EW-271	VAR	3.7604		11-29-69	1230	2ATH-KW		1.000		12-03-69	0645	12-08-69
271	EW-271	SODIUM	.0139		12-01-69	0640	2ATH-KW		1.000		12-01-69	0700	12-02-69
271	EW-271	VAR	2.9361		12-11-69	1005	2ATH-KW		1.000		12-14-69	0945	12-15-69
271	EW-271	SODIUM	.0417		12-16-69	0620	2ATH-KW		1.000		12-16-69	0920	12-18-69
362	EW-362	CE-9A	20.3542		12-01-69	1045	48TH-KW		1.000		12-27-69	1330	12-31-69
400	EW-400	BIO	.0208		12-05-69	0915	2ATH-KW		1.000		12-06-69	0945	12-08-69
400	EW-400	BIO	.0208		12-06-69	0915	2ATH-KW		1.000		12-06-69	0945	12-08-69
400	EW-400	BIO	.0208		12-06-69	0915	2ATH-KW		1.000		12-06-69	0945	12-08-69
400	EW-400	BIO	.0208		12-06-69	0915	2ATH-KW		1.000		12-06-69	0945	12-08-69
400	EW-400	BIO	.0208		12-06-69	0915	2ATH-KW		1.000		12-06-69	0945	12-08-69
400	EW-400	BIO	.0208		12-06-69	0915	2ATH-KW		1.000		12-06-69	0945	12-08-69

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IDENTIFICATION				CHARGE		LOCATION		DISCHARGE		SHIPPING DATE				
TSR NO.	REQUEST NUMBER	MATERIAL	PIECE NO.	OPERATING TIME (DAYS)	CMK ABSORBED	DATE	TIME	FACILITY	TEST HOLE POSITION		POSITION FACTOR	EXPOSURE TO DATE NVT	DATE	TIME
THE FOLLOWING IRRADIATIONS WERE SHIPPED DURING THE MONTH														
400	EW-400	B10	0026	.0278		12-06-69	1058	2ATH-KW		1.000	2, 4+17	12-06-69	1138	12-08-69
400	EW-400	B10	0027	.0278		12-06-69	1058	2ATH-KW		1.000	2, 4+17	12-06-69	1138	12-08-69
400	EW-400	B10	0028	.0278		12-06-69	1058	2ATH-KW		1.000	2, 4+17	12-06-69	1138	12-08-69
400	EW-400	B10	0029	.0278		12-06-69	1058	2ATH-KW		1.000	2, 4+17	12-06-69	1138	12-08-69
400	EW-400	B10	0030	.0278		12-06-69	1058	2ATH-KW		1.000	2, 4+17	12-06-69	1138	12-08-69
400	EW-400	B10	0031	.0278		12-06-69	1058	2ATH-KW		1.000	2, 4+17	12-06-69	1138	12-08-69
400	EW-400	B10	0032	.0208		12-11-69	0901	2ATH-KW		1.000	1, 8+17	12-11-69	0931	12-12-69
400	EW-400	B10	0033	.0208		12-11-69	0901	2ATH-KW		1.000	1, 8+17	12-11-69	0931	12-12-69
400	EW-400	B10	0034	.0208		12-11-69	0901	2ATH-KW		1.000	1, 8+17	12-11-69	0931	12-12-69
400	EW-400	B10	0035	.0208		12-11-69	0901	2ATH-KW		1.000	1, 8+17	12-11-69	0931	12-12-69
400	EW-400	B10	0036	.0208		12-11-69	0901	2ATH-KW		1.000	1, 8+17	12-11-69	0931	12-12-69
400	EW-400	B10	0037	.0208		12-11-69	0901	2ATH-KW		1.000	1, 8+17	12-11-69	0931	12-12-69
400	EW-400	B10	0038	.0007		12-11-69	0951	2ATH-KW		1.000	5, 9+15	12-11-69	0952	12-12-69
400	EW-400	B10	0039	.2500		12-19-69	0830	48TH-KW		1.000	1, 9+17	12-19-69	1430	12-22-69
400	EW-400	B10	0040	.2500		12-19-69	0830	48TH-KW		1.000	2, 7+17	12-19-69	1430	12-22-69

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