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NRC Research and Technical Assistance Report

OAK RIDGE NATIONAL LABORATORY Oak Ridge, Tennessee 37830 operated by UNION CARBIDE CORPORATION for the DEPARTMENT OF ENERGY

7908140 575

OAK RIDGE NATIONAL LABORATORY MONTHLY REPORT TO THE DIVISION OF SITE SAFETY AND ENVIRONMENTAL ANALYSIS

June 1979

A. Status of Environmental Reviews

Allens Creek - J. B. Cannon, Project Manager

No significant activity.

Douglas Point - H. E. Zittel, Project Manager

The staff has been reviewing the Applicant's Site Selection Study. A site visit is anticipated for August.

Greene County - R. M. Rush, Project Manager

No activity.

Indian Point - R. M. Rush, Project Manager

Preparation of the staff's direct testimony has been completed and submitted to the Board. The meanings will resume in September with cross examination of the staff's hearing.

New England Power Units 1 and 2 - R. M. Rush, Project Manager

On June 12 the Applicant announced that it was curtailing its licensing effort until the disposition of the proposed site is resolved by GSA. On June 20 GSA announced that the proposed site will be conveyed to the DOI Fish and Wildlife Service, the EPA, and the town of Charlestown. The environmental review of this application has been placed on indefinite hold.

San Onofre Units 2 and 3 - R. M. Rush, Project Manager

No significant activity.

South Texas - J. B. Cannon, Project Manager

The PDES was transmitted to the Commission. No further work is anticipated for the remainder of this calendar year.

Sterling - J. B. Cannon, Project Manager

No activity.

Virgil C. Summer Nuclear Station - N. E. Hinkle, Project Manager

The DES was issued in late June with minor changes made by NRC on the mats prepared at ORNL. Work on this project will be virtually nonexistent until the end of the public comment period.

Erie - N. E. Hinkle, Project Manager

The majority of the draft to the revised alternative sites assessment has been delivered to NRC for review. Review by ORNL team members has been underway. Further major activity on this project awaits responses from the NRC reviewers.

Blue Hills - J. M. Loar, Project Manager

The staff has participated in the ASLB hearing. No further action is contemplated.

B. Technical Projects

Alternative Screening Devices for Reducing Entrainment/Impingement - J. B. Cannon, Principal Investigator

The final draft of ORNL/TM-6472 has cleared Laboratory Records and is now in Reproduction.

Timing for Additions to Generating Capacity - R. L. Spore

No activity.

Socioeconomic Impact of Coal Fuel Cycles - B. H. Bronfman

No activity.

C. Support Group Activities Environmental Fluid Dynamics Group

PLUME Model User's Manual - J. B. Cannon

No activity this month.

ORFAD - Cooling Tower Fog and Drift Program - M. E. LaVerne and E. C. Long

Work has continued on revising the ORFAD program to make its operation more efficient. The formulation of the droplet impact velocity when the fall distance is less than the evaporation height (used in the Hosler approximation) has been revised to be more consistent with physical reality. The effect of this will be a slight reduction in the predicted salt concentration.

Statistical Continuum Model of Thermal Discharge - A. J. Witten and E. C. Long

The paper describing the instantaneous release of a pollutant into a stream is in its final typing stage. The work on inverting the Mellon transform used in the stochastic theory for predicting the impacts of a pollutant being released continuously into a stream is complete. Writing of the paper describing this has been started.

Simplified 2-D Tidal Model - A. J. Witten and E. C. Long

No activity this month.

D. Budget

Project costs are reported in the attached tables.

E. Overdue Action of SSEA Regarding Laboratory Requests None.

F. Remarks

None.

N.E. Zittel

H. E. Zittel, Manager Environmental Statements Project

ENVIRONMENTAL STATEMENTS PROJECT COST AND MANPOWER DEVOTED TO ORNL WORK FOR THE DIVISION OF SITE SAFETY AND ENVIRONMENTAL ANALYSIS

027

27	June 1979*				FY 1979	Prior Years		
		Administrative	Project		Administrative	Project	.,,,,,,	
	MMs	MMs	Cost	MYs	MYs	Cost	Cost	MYs
Indian Point				.40	0.02	37,947	414,119	7.43
PMNP-Generic Seabrook				.01		1,920 12,195	647,452 294,495	9.39
Atlantic Montague				.04		249 2,895	416,223 336,355	6.39 5.31
Greene Co. Technical Projects			78	2.66	0.20	371,556	686,806	8.1
Power Plant Intake Design Multiple Use Cooling Reservoir						105	67,629 36,874	.85
Standard Review Plan C' ling Water Consumption Economic Research Time Socioeconomic Impacts				.01		1,984	159,216 1,029 849 28	1.71
Fort Calhoun Sundesert					0.02	20 25,551	364,719 401,129	3.61 4.33
Erie San Onofre 2, 3	1.45	0.6	23,282 3,208	0.54	0.04	58,260 32,219	372,439 214,306	4.26
Virgil C. Summer Shearon Harris	0.04	0.1	1,797	0.	0.07	99,632	83,137	1.08
Allens Creek Comanche Peak Grand Gulf	0.08	0.1	1,890	0.57	0.06	61,535 1,854	164,604 24,680 5,699	1.67 .32 .07
South Texas Surry 3, 4 Douglas Point 1, 2	0.31	0.2	4,488	0.60	0.06	66,798	17,645 133,907 174,172	.20 2.44 3.33
Cherokee Perkins				0.10	0.01	16,570	142,617 137,454	2.58
New England	0.55	0.4	7,731	0.10	0.16	202,387	137,434	2.70

^{*}Includes combined costs for March and April plus \$38,360 aad charges from February.

Tyrone Energy Park 1, 2					***		329,629	4.01
Jamesport	***		****	***			345,326	5.57
North Coast	200					***	107,819	1.92
Sterling			****			***	222,505	4.40
Construction Cost Nomograms		***				***	30,193	. 37
North Anna			****			***	56,401	1.29
Surry 1, 2						W 100 W 100	20,434	.18
Diablo Canyon						****	7,886	.06
Black Fox		40.4	****		***	n. or 40 m	9,376	.08
Cost/Benefit Section						****	3,553	.03
PMNP-Manufacturing				***	***		1,213	.02
Perry ', 2							141,440	3.04
Indian Point 1						***	38,596	.87
Summit 2, 3			85.18			****	160,380	3.58
Comanche 1, 2					***		96,831	2.27
River Bend	***	***	***	***	***	****	111,330	2.36
Fulton 1, 2					***		72,895	1.54
Offshore Survey Report							6,053	.40
Allens Creek 1, 2		***	****	***			89,907	1.59
Quanticassee 1, 2		***					31,988	.62
Jegusyah Nuclear Plant			***				3,795	. 06
Clinch River (LMFBR)			***		***	****	4,835	.11
Perkins Nuclear Station	***			***	***		131,330	2.40
Wolf Creek Project	***		W. W. W.	100 mm mm			263,680	3.90
South Texas Project	***	***			400		110,350	2.30
Palisades	549			***		****	2,996	.07
Mendocino				~ ~ ~	***	****	138,546	3.73
McGuire	***	344				***	35,996	.87
Hatch 1, 2	***			244		***	2,815	.07
Arkansas	***			***		***	62,899	1.78
Farley		***					5,209	.12
Peach Bottom	***						47,135	1.20
Limerick 1, 2	***			60 Sec. 400			100,222	2.48
Newbold Island	***					***	10,673	3.12
Vermont Yankee			100,000,000		***		15,002	. 38
St. Rosalie	***	10 M W		***			1,256	.03
Ginna						****	155,575	3.84

Vogtle San Onofre 1 Catawaba Offshore-Manufacturing Shoreham Blue Hills Offshore-Generic Interagency Study Hope Creek 1, 2 Alternate Site Evaluations Striped Bass Hartsville User's Manual Tidal Transient 2-D Far-Field User's Manual Tidal Transient 1-D Estuaries & Rivers			928			1,58	116,550 158,920 111,355 270,027 203,369 25,751 62,306 67,946 44,417 15,559 7,931 1,414	2.98 3.79 3.18 6.53 3.03 2.65 1.29 1.57 1.10 .22
Barnwell Marble Hill - Assistance General Support Contract Costs Administration Problem Groups Allocated Miscellaneous		1.7					1,336 41,951 67,846 (1,067,794) (702,338) 293,796	(14.70) (13.70) 4.25
Total	2.63	1.7	43,402	7.64	0.8	956,471	11,198,883	168.36

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