

INTERIM REPORT

*NRC Research and Technical  
Assistance Report*

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Project Title: Environmental Statements Project

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Responsible NRC Individual and NRC Office or Division: Wm. H. Regan,  
Assistant Director (acting), Division of Site Safety and Environmental Analysis

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

*NRC Research and Technical  
Assistance Report*

INTERIM REPORT

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

May 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 received the Site Selection study from the Applicant and a team has been assigned to review the document.

Greene County - R. M. Rush, Project Manager

All activity has been suspended until such time as the NRC informs us to the contrary.

Indian Point - R. M. Rush, Project Manager

Preparation of direct testimony for the EPA hearings continued to be the main effort of team members.

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

The DES has been issued and the comment period is underway.

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

The staff has been informed that a further analysis of the heat discharge may be required.

South Texas - J. B. Cannon, Project Manager

Work continued on preparation of the PDES. The target date for completion of this activity is June 1979.

Sterling - J. B. Cannon, Project Manager

No activity.

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

Final changes to the PDES by ORNL and NRC staff were incorporated into the document. The mats were shipped to the EPM for publication of the DES for the operating license.

Erie - N. E. Hinkle, Project Manager

Preparation of the revised alternative sites assessment has been a nearly full-time activity of the Project Manager and the ORNL team members, A. M. Solomon and G. K. Eddlemon, during May. About 50% of the draft copy was delivered to the NRC EPM and case lawyer for review. The remainder was almost ready for typing at the end of the month.

## B. Technical Projects

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

No significant activity.

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

No activity this month.

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

Rewriting of the ORFAD User's Manual has been completed. An error was discovered in the TDF-14 weather tape preprocessing program, and it was subsequently corrected. The effect of this error was that the pre-processor was declaring the weather data readings with unlimited ceilings invalid. The impact of this on the past work is judged to be insignificant. The programming of ORFAD itself is being revised to make the running of the program more efficient. Additional requests for the updated version of ORFAD have been received, and copies of the program have been sent to those parties.

3-D Transient Far-Field Model for  $\Delta T$  in Rivers from an Arbitrary Source  
A. J. Witten and E. C. Long

This activity has been discontinued because of the priority of other projects.

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

Work on the stochastic theory for predicting the impacts of pollutant being released into a stream continuously is nearly complete. The paper describing the instantaneous release of a pollutant into a stream has been rewritten and has been sent to the editor for final corrections.

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.

*H. 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

	May 1979*			FY 1979			Prior Years	
	MM.	Administrative MMs	Project Cost	MYS	Administrative MYS	Project Cost	Cost	MYS
Indian Point				.40	0.02	37,947	414,119	7.43
PMNP-Generic				.01		1,920	647,452	9.39
Seabrook				.08		12,195	294,495	4.7
Atlantic						249	416,223	6.39
Montague				.04		2,895	336,355	5.31
Greene Co.	0.8	0.15	7,093	2.66	0.20	371,478	686,806	8.1
Technical Projects								
Power Plant Intake Design						105	67,629	.85
Multiple Use Cooling Reservoir							36,874	
Standard Review Plan				.01		1,984	159,216	1.71
Cooling Water Consumption							1,029	
Economic Research Time							849	
Socioeconomic Impacts							28	
Fort Calhoun						20	364,719	3.61
Sundesert					0.02	25,551	401,129	4.33
Erie	2.46	0.6	5,295	0.43	0.04	34,978	372,439	4.26
San Onofre 2, 3	0.81	0.15	2,446	0.23	0.02	29,011	214,306	2.41
Virgil C. Summer	0.68	0.1	5,439	0.72	0.07	97,835	83,137	1.08
Shearon Harris						66	1,989	.011
Allens Creek	1.59	0.4	622	0.57	0.06	59,835	164,604	1.67
Comanche Peak				.01		1,854	24,680	.32
Grand Gulf							5,699	.07
South Texas				0.58	0.06	62,310	17,645	.20
Surry 3, 4							133,907	2.44
Douglas Point 1, 2							174,172	3.33
Cherokee							142,617	2.58
Perkins				0.10	0.01	16,570	137,454	2.48
New England	2.96	0.7	7,665	1.62	0.16	194,656		

\*Includes combined costs for March and April plus \$38,360 bad charges from February.

Tyrone Energy Park 1, 2	---	---	----	---	---	---	---	329,629	4.01
Jamesport	---	---	----	---	---	---	---	345,326	5.57
North Coast	---	---	----	---	---	---	---	107,819	1.92
Sterling	---	---	----	---	---	---	---	222,505	4.40
Construction Cost Nomograms	---	---	----	---	---	---	---	30,193	.37
North Anna	---	---	----	---	---	---	---	56,401	1.29
Surry 1, 2	---	---	----	---	---	---	---	20,434	.18
Diablo Canyon	---	---	----	---	---	---	---	,886	.06
Black Fox	---	---	----	---	---	---	---	9,376	.08
Cost/Benefit Section	---	---	----	---	---	---	---	3,553	.03
PMNP-Manufacturing	---	---	----	---	---	---	---	1,213	.02
Perry 1, 2	---	---	----	---	---	---	---	141,440	3.04
Indian Point 1	---	---	----	---	---	---	---	38,596	.87
Summit 2, 3	---	---	----	---	---	---	---	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
Sequoyah Nuclear Plant	---	---	----	---	---	---	---	3,795	.06
Clinch River (LMFBR)	---	---	----	---	---	---	---	4,835	.11
Perkins Nuclear Station	---	---	----	---	---	---	---	131,330	2.40
Wolf Creek Project	---	---	----	---	---	---	---	263,680	3.90
South Texas Project	---	---	----	---	---	---	---	110,550	2.30
Palisades	---	---	----	---	---	---	---	2,996	.07
Mendocino	---	---	----	---	---	---	---	138,546	3.73
McGuire	---	---	----	---	---	---	---	35,996	.87
Parish 1, 2	---	---	----	---	---	---	---	2,815	.07
Arkansas	---	---	----	---	---	---	---	62,899	1.78
Farley	---	---	----	---	---	---	---	5,209	.12
Peach Bottom	---	---	----	---	---	---	---	47,135	1.20
Limerick 1, 2	---	---	----	---	---	---	---	100,222	2.48
Newbold Island	---	---	----	---	---	---	---	110,673	3.12
Vermont Yankee	---	---	----	---	---	---	---	15,002	.38
St. Rosalie	---	---	----	---	---	---	---	1,256	.03
Ginna	---	---	----	---	---	---	---	155,575	3.84

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Vogtice							116,550	2.98
San Onofre 1							158,920	3.79
Catawaba							111,355	3.18
Offshore-Manufacturing							270,027	6.53
Shoreham							203,369	3.03
Blue Hills	613					660	25,751	2.65
Offshore-Generic							62,306	1.29
Interagency Study							67,946	1.57
Hope Creek 1, 2							44,417	1.10
Alternate Site Evaluations							15,559	.22
Striped Bass							7,931	
Hartsville							1,414	.01
User's Manual Tidal Transient 2-D Far-Field							139	
User's Manual Tidal Transient 1-D Estuaries & Rivers							6	
Barnwell								
Marble Hill - Assistance							1,336	
General Support							41,951	
Contract Costs	(2.1)						67,846	
Administration							(1,067,794)	(14.70)
Problem Groups							(702,338)	(13.70)
Allocated Miscellaneous							293,796	4.25
Total	9.30	(2.1)	29,173	7.46	0.7	883,896	11,198,883	168.36

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