T-6282

6280/4
FAC
7 NOV 1984

Mr. Robert F. Helms, Director
North Carolina Division of
Environmental Management
P.O. Box 27687
Raleigh, NC 27611-7687

Re: Application for Renewal of NPDES Permit
NC 0003239
Marine Corps Base
Camp Lejeune, NC

Dear Mr. Helms:

Enclosed with this letter is the subject permit application with supporting data. Analytical data for the effluents is provided through the cooperative efforts of the Atlantic Division, Naval Facilities Engineering Command, Norfolk, Virginia.

Data on effluent quality has been reviewed and a summary is enclosed for the period 1977-1984. The volume of wastewater flow treated by the seven sewage plants varies from 40% to 81% of design capacity. Effluent Biochemical Oxygen Demand (BOD) concentrations for an 86-month period are generally less than 15 mg/l as compared to the permit limit of 30 mg/l. Effluent Total Suspended Solids (TSS) concentrations are ten mg/l for the same period. Effluent coliform levels occur at ten per 100 ml. Based on the compliance with the existing permit as demonstrated by this data, secondary limits in the renewed permit seem appropriate for these facilities.

Note should be taken of the criteria in the current permit for 85% BOD and TSS removal, which has created excess reporting requirements in light of low influent and effluent BOD and TSS levels. We request, therefore, that the percent removal criterion be deleted in the permit renewal.

As shown in Part B of the application, many pollutants which require laboratory analyses are indicated "believed absent." The data to confirm the absence of the GC/MS pollutants were not available at the date of this writing and will be forwarded in approximately 30 days.

More than $8 million dollars have been spent on construction of pollution abatement facilities at Camp Lejeune since 1979. This construction connected discharges 008-013 and 015, water treatment plant (WTP) backwash, to the sanitary sewer system.

6280/4
PAC

Discharge 014 in the current permit, Onslow Beach WTP, continues to discharge and has been redesignated as 008. Additional construction is either in progress or in design for elimination of discharges from the Main Steam Plant, Building 1700, Coal Pile Runoff; Building 1450, 10th Marines vehicle washrack; and MCAS(H)NR "O" and "E" club swimming pools backwash wastewaters. These discharges are not proposed for permitting in this application.

A military construction project, P-996, Industrial Waste Collection and Treatment, completed construction at 114 locations and provided a total of 147 new oil/water separators; sanitary sewer connections for wastewater collection from existing wash/lube racks; new washracks and waste oil storage tanks; oil spill prevention control and countermeasures (SPCC) structures; and sewer connections for boiler blowdown and WTP backwash wastewaters. Further, base environmental and maintenance staff have developed effective policies and provided technical assistance to military units, which have enabled these facilities to work properly.

The results of this substantial commitment to clean water are evident in the enclosed stormwater data summary. Seventy-one stormwater outfalls have been monitored monthly since 1977. Oil concentrations have dropped from 10-77 mg/l to near the detection limit of one mg/l, and in most cases below the detection limit. We request, therefore, that the requirement for continued monitoring of stormwater outfalls be deleted in the permit renewal.

This command appreciates the cooperative and professional attitude which your staff has displayed and the assistance provided. We look forward to your review of this permit application and an expeditious permit renewal. Please feel free to contact Mr. Bob Alexander, Marine Corps Base Environmental Engineer, (919) 451-3034, if you desire additional information.

Sincerely,

L. H. BUEHL
Brigadier General, U.S. Marine Corps
Commanding

Encl:
NPDES Permit Application (2)

Copy to:
CMC (Code LFL)
COMLANTNAVFACENGCOM (Code 114)
EPA Region IV, Attn: Federal
Activities Coordinator
NC Div of Env Mgt

Blind cys to:
BMO (2) SJA
NREAD EnvEngr

T-628Z

CAMP LEJEUNE

NORTH CAROLINA

UNITED STATES MARINE CORPS

I N D E X

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

UNITED STATES MARINE CORPS
Marine Corps Base
Camp Lejeune, North Carolina 28542-5001

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
9711 (specify) NATIONAL DEFENSE	(specify)
C. THIRD	**D. FOURTH**
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: MARINE CORPS BASE, CAMP LEJEUNE, NC

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC (other than federal or state); O = OTHER (specify)
F (specify)

D. PHONE (area code & no.): 919 451 3034

E. STREET OR P.O. BOX: OFFICE OF AC/S, FACILITIES

F. CITY OR TOWN: CAMP LEJEUNE

G. STATE: NC

H. ZIP CODE: 28542-5001

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): NC0003239	**D. PSD** (Air Emissions from Proposed Sources): NA
B. UIC (Underground Injection of Fluids): NA	**E. OTHER** (specify): NA (specify)
C. RCRA (Hazardous Wastes): NC6170022580	**E. OTHER** (specify): NA (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Military Training and Supporting Activities
Equipment and Vehicle Maintenance
*Facilities Maintenance
Personnel Housing & Utilities Operation

*Note: Wastewater treatment plants discharge only treated wastes produced aboard this facility.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
L. H. BUEHL, Brigadier General, Commanding General	USMC	

COMMENTS FOR OFFICIAL USE ONLY

C

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1): NC 0003239

Form Approved OMB No. 158-R0173

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	34	39	00	77	21	00	New River (Camp Geiger STP)
002	34	39	00	77	20	00	New River (Tarawa Terrace STP)
003	34	39	00	77	20	00	New River (Camp Johnson STP)
004	34	39	00	77	21	00	New River (Hadnot Point STP)
005	34	39	00	77	21	00	New River (Rifle Range STP)
006	34	39	00	77	21	00	New River (Courthouse Bay STP)

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If ...ists), provide a pictorial description of the nature and amount of any sources of wate LINE DRAWING: SEE ATTACHMENT I

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1
001	Sanitary Wastewater, Camp Geiger STP	(See Att II, Sewage Plant Data Summary)	Primary clarifiers,	1U,
			Trickling filter, chemically assisted sedimentation and filtration,	2C, 1R, 2F,
			Effluent chlorination,	3H, 5B
			Sludge drying beds,	5H
			Anaerobic sludge digestion,	5Q
			~~Landfill sludge disposal~~	
002-007	Sanitary Wastewater	(See Att II)	Primary clarifiers,	1U,
			Trickling filters,	3H,
			~~Effluent chlorination,~~	~~5B,~~
			Sludge drying beds,	5H,
			Anaerobic sludge digestion,	5Q,
			~~Landfill sludge disposal~~	2F
008	Water Treatment Plant	3500 GPD	Settling	1U

OFFICIAL USE ONLY (effluent guidelines sub-categories)

Please print or type in the unshaded areas only.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

NC 0003239

Form Approved OMB No. 158-R0173

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
007	34	39	00	77	21	00	Atlantic Intracoastal Water(Onslow Bch STP
008	34	39	00	77	21	00	Atlantic Intracoastal Water(Onslow Bch WTP

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

EPA I.D. NUMBER (copy from Item 1 of Form 1)
NC 0003239

Form Approved OMB No. 158-R0173

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
B.O.D.	Sanitary sewage		
Total suspended solids	Sanitary sewage and WTP backwash		
Coliform	Sanitary sewage		
Oil & grease	Military vehicle washracks		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. Is any pollutant listed in Item V-C a substance or a component of a substance which you do or expect that you will over the next 5 years use or manufacture as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☒ NO *(go to Item VI-B)*

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharges of pollutants may during the next 5 years exceed two times the maximum values reported in Item V?

☐ YES *(complete Item VI-C below)* ☒ NO *(go to Section VII)*

C. If you answered "Yes" to Item VI-B, explain below and describe in detail the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years, to the best of your ability at this time. Continue on additional sheets if you need more space.

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: NC 0003239

Form Approved OMB No. 158-R0173

OUTFALL NO.: 001-007

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*												
b. Chemical Oxygen Demand *(COD)*												
c. Total Organic Carbon *(TOC)*												
d. Total Suspended Solids *(TSS)*												
e. Ammonia *(as N)*												
f. Flow	VALUE									VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

See Attachment III
Discharges 001-007, Pollutants
(Part A, B, and C)
Centec Analytical Services, Inc.
Report 19 October 1984/338

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X													
b. Chlorine, Total Residual	X													
c. Color	X													
d. Fecal Coliform	X													
e. Fluoride (16984-48-8)	X													
f. Nitrate--Nitrite *(as N)*	X													

See Attachment III
Discharges 001-007, Pollutants
(Part A, B, and C)
Centec Analytical Services, Inc.
Report 19 October 1984/338

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
NC 0003239	001-007

CONTINUED FROM PAGE 3 OF FORM 2-C

Form Approved OMB No. 158-R0173

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, non-process wastewater outfalls, and non-required GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table *(all seven pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)		X													
2M. Arsenic, Total (7440-38-2)															
3M. Beryllium, Total, 7440-41-7)															
4M. Cadmium, Total (7440-43-9)															
5M. Chromium, Total (7440-47-3)															
6M. Copper, Total (7550-50-8)															
7M. Lead, Total (7439-97-6)															
8M. Mercury, Total (7439-97-6)															
9M. Nickel, Total (7440-02-0)															
10M. Selenium, Total (7782-49-2)															
11M. Silver, Total (7440-22-4)															
12M. Thallium, Total (7440-28-0)															
13M. Zinc, Total (7440-66-6)															
14M. Cyanide, Total (57-12-5)															
15M. Phenols, Total		X													
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

See Attachment III
Discharges 001-007, Pollutants
(Part A, B, and C)
Centec Analytical Services, Inc.
Report 19 October 1984/338

EPA I.D. NUMBER (copy from Item 1 of Form 1): NC 0003239 | OUTFALL NUMBER: 001-007

Form Approved OMB No. 158-R0173

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X														
23V. 1,1,2,2-Tetrachloroethane (79-34-5)															
24V. Tetrachloroethylene (127-18-4)															
25V. Toluene (108-88-3)															
26V. 1,2-Trans-Dichloroethylene (156-60-5)															
27V. 1,1,1-Trichloroethane (71-55-6)															
28V. 1,1,2-Trichloroethane (79-00-5)															
29V. Trichloroethylene (79-01-6)															
30V. Trichlorofluoromethane (75-69-4)															
31V. Vinyl Chloride (75-01-4)	X														
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichlorophenol (120 83-2)			X												
3A. 2,4-Dimethylphenol (105-67-9)			X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X												
5A. 2,4-Dinitrophenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro M-Cresol (59-50-7)			X												
9A. Pentachlorophenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichlorophenol (88-06-2)			X												

See Attachment IV
Discharges 001-007
GC/MS Fraction-Volatile Compounds
Centec Analytical Results Report
1, 2 October & 25 September 1984

GC/MS Fraction-Acid Compounds
-Base/Neutral Cmpds
-Pesticide
BELIEVED ABSENT--Confirmation by Laboratory Analyses will be forwarded on or about 1 Dec 84

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
NC 0003239	001-007

Form Approved OMB No. 158-R0173

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			X												
23B. 3,3'-Dichlorobenzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131-11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitrotoluene (121-14-2)			X												
28B. 2,6-Dinitrotoluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachlorobenzene (118-71-1)			X												
34B. Hexachlorobutadiene (87-68-3)			X												
35B. Hexachlorocyclopentadiene (77-47-4)			X												
36B. Hexachloroethane (67-72-1)			X												
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitrosodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

GC/MS Fraction--Acid Compound
Base/Neutral Cmpd
Pesticide

BELIEVED ABSENT--Confirmation by Laboratory Analyses will be forwarded on or about 1 Dec 84

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
NC 0003239	001-007

Form Approved OMB No. 158-R0173

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TEST-ING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION -- PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

GC/MS Fraction-Acid Compounds
-Base/Neutral Cmpd
-Pesticide
BELIEVED ABSENT--Confirmation by Laboratory Analyses will be forwarded on or about 1 Dec 84

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: NC 0003239

Form Approved OMB No. 158-R0173

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 008

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*												
b. Chemical Oxygen Demand *(COD)*	55	16					1	mg/l	lb/day			
c. Total Organic Carbon *(TOC)*												
d. Total Suspended Solids *(TSS)*	20	5.8					1	mg/l	lb/day			
e. Ammonia *(as N)*	0.11	0.003					1	mg/l	lb/day			
f. Flow	VALUE		VALUE		VALUE					VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate--Nitrite *(as N)*		X												

EPA I.D. Number NC 0003239

DISCHARGE 008 - SUMMARY PAGE

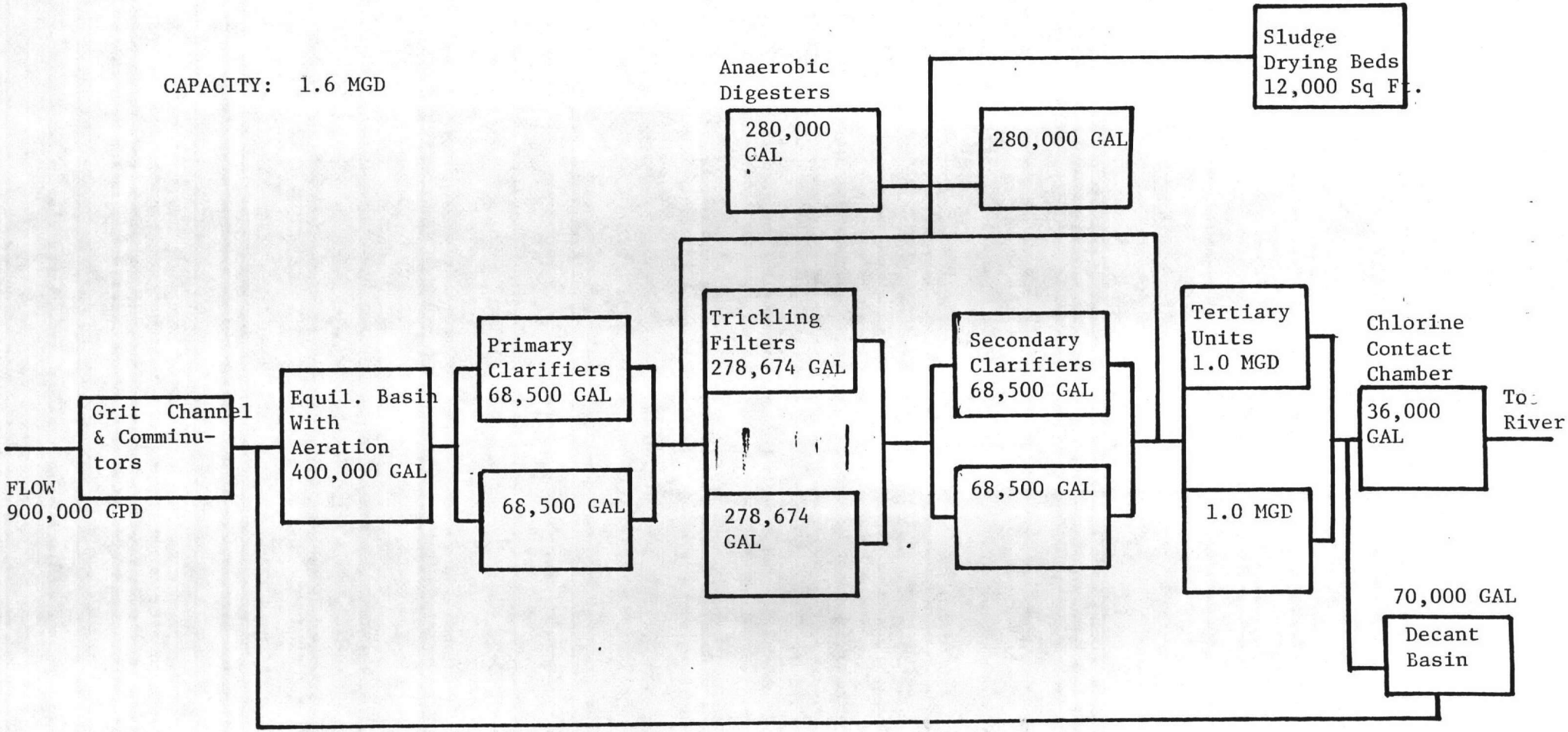
Onslow Beach Water Treatment Plant Backwash

The following pollutants are BELIEVED TO BE ABSENT and are summarized for brevity:

CAMP GEIGER WASTEWATER TREATMENT PLANT

BUILDING TC-563

CAPACITY: 1.6 MGD

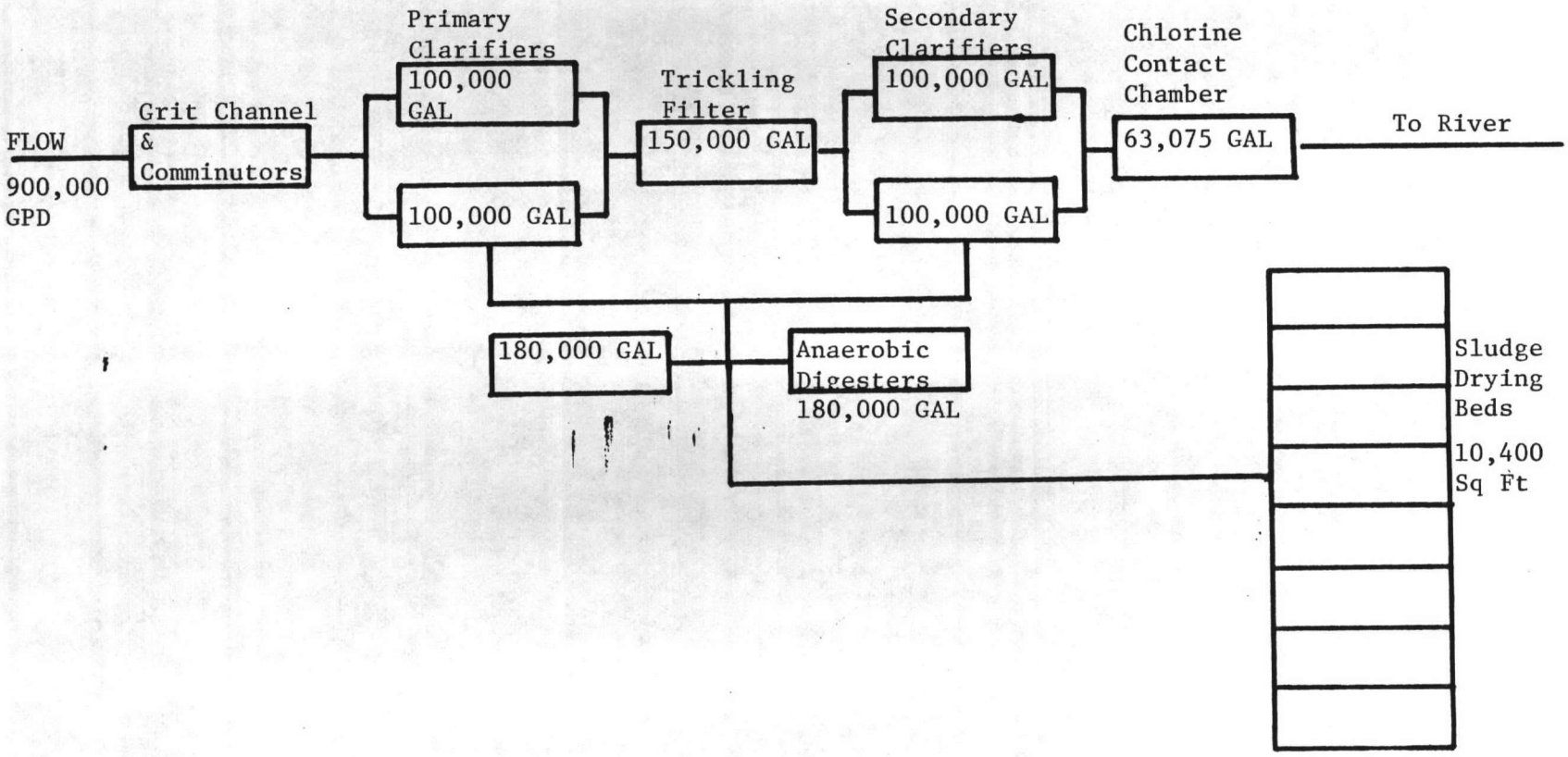


Discharge: 001

TARAWA TERRACE WASTEWATER TREATMENT PLANT

BUILDING TT-35

CAPACITY: 1.25 MGD

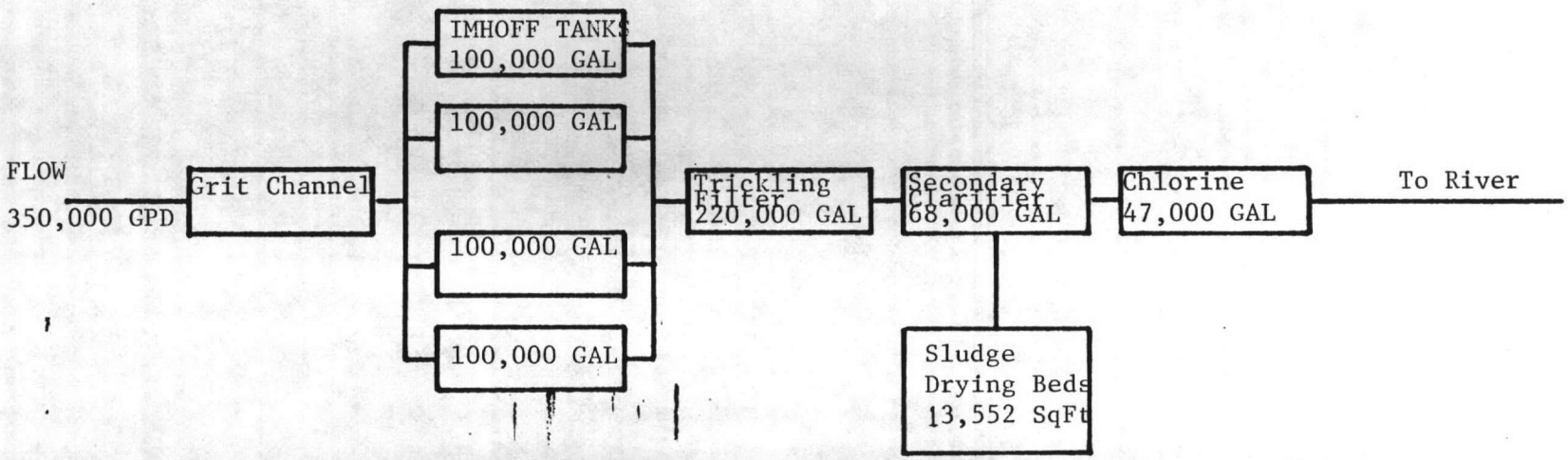


Discharge: 002

CAMP JOHNSON WASTEWATER TREATMENT PLANT

BUILDING M-136

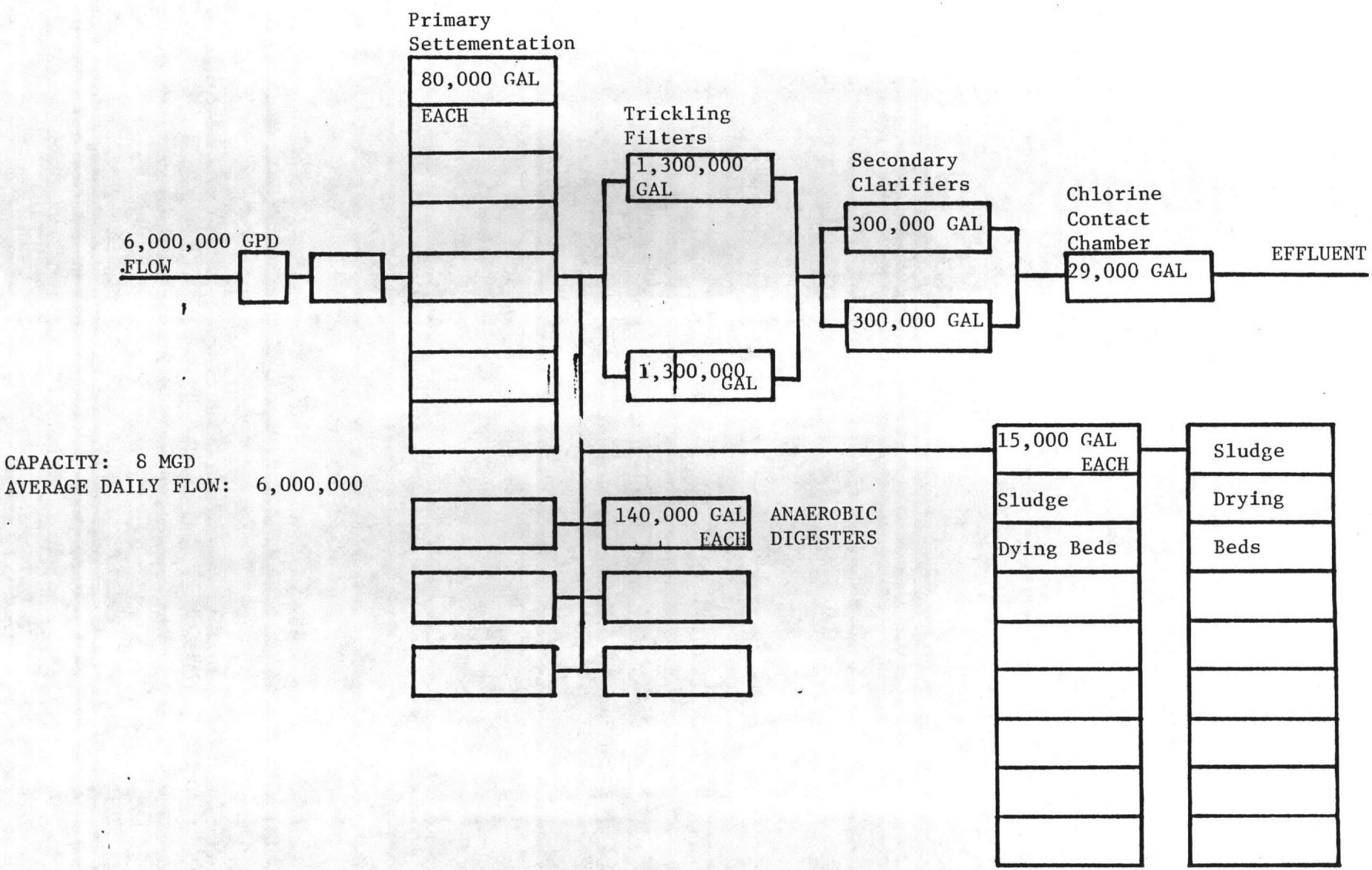
CAPACITY: 1.0 MGD



Discharge: 003

HADNOT POINT WASTEWATER TREATMENT PLANT

BUILDING 22

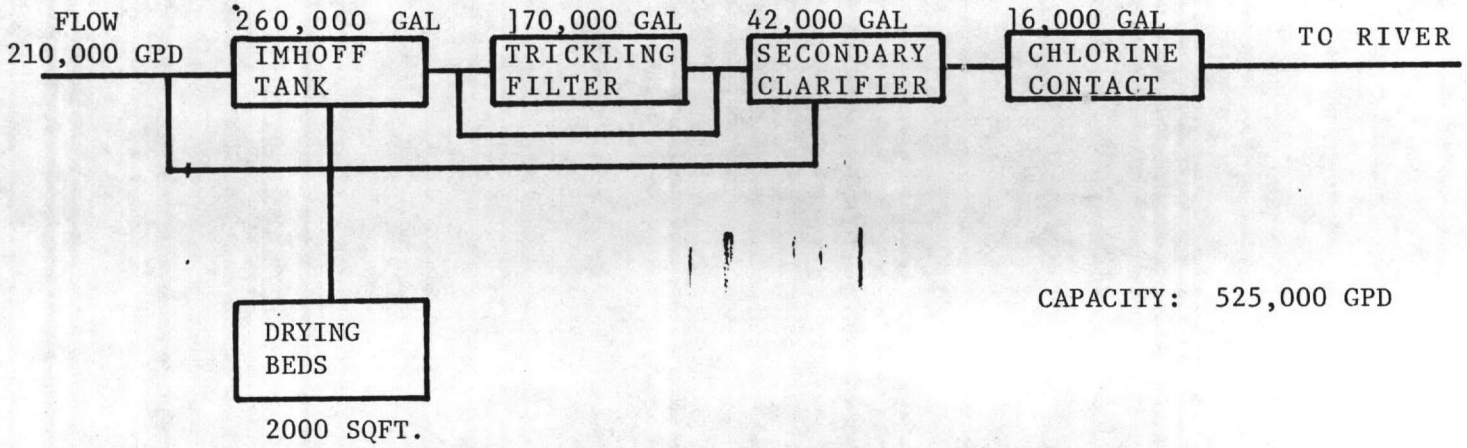


Discharge: 004

TOTAL: 39,672 Sq Ft.

RIFLE RANGE WASTEWATER TREATMENT PLANT

BUILDING RR-92

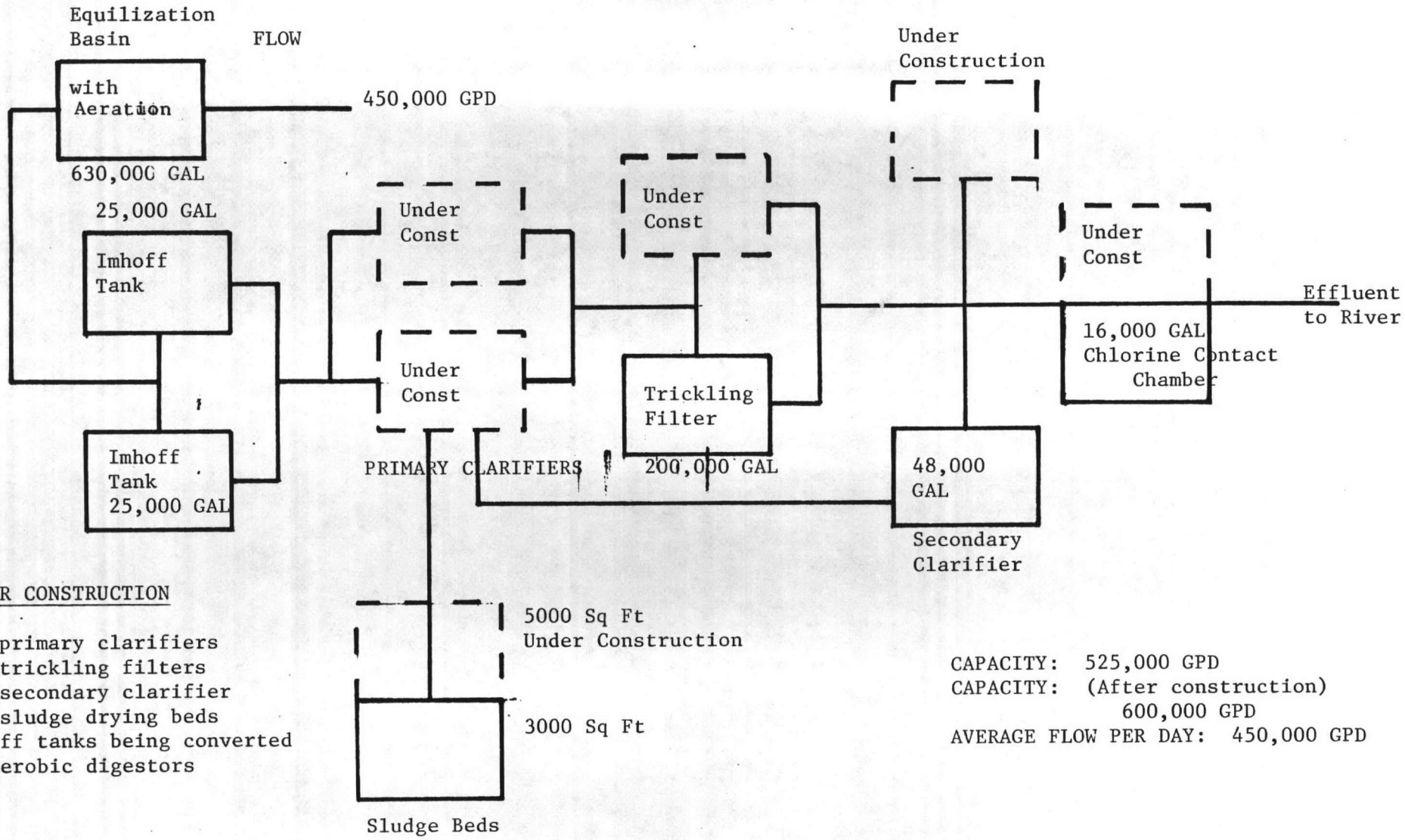


CAPACITY: 525,000 GPD

Discharge: 005

COURTHOUSE BAY WASTEWATER TREATMENT PLANT

BUILDING BB-204



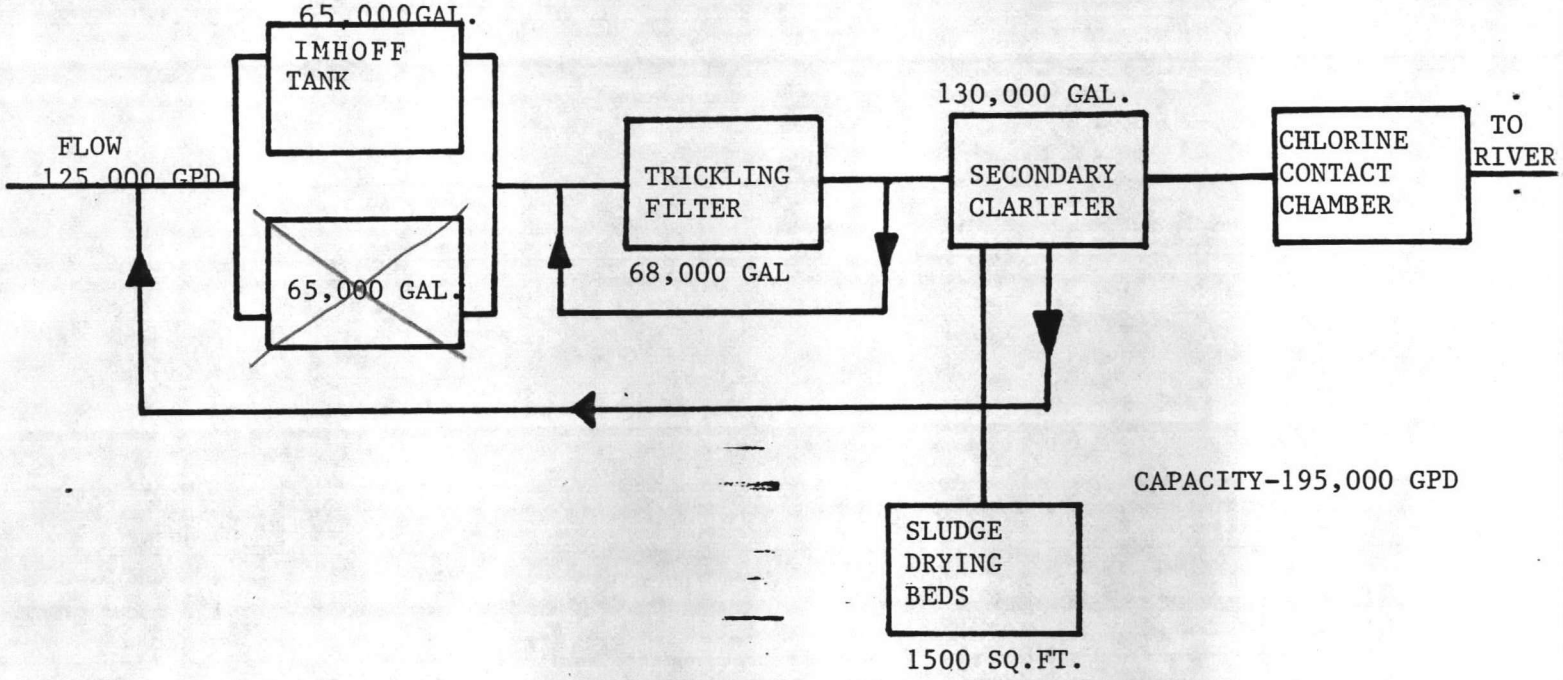
UNDER CONSTRUCTION

2 - primary clarifiers
1 - trickling filters
1 - secondary clarifier
5 - sludge drying beds
Imhoff tanks being converted to aerobic digestors

CAPACITY: 525,000 GPD
CAPACITY: (After construction) 600,000 GPD
AVERAGE FLOW PER DAY: 450,000 GPD

Discharge: 006

ONSLOW BEACH WASTEWATER TREATMENT PLANT
BUILDING SBA-160



Discharge: 007

MCB CAMP LEJEUNE
SEWAGE PLANT DATA SUMMARY
MONTHLY AV. FLOW (000 GPD)
NOTE: EX = EXCEPTION TO PERMIT LIMIT

DESIGN:		1600	1250	1000	8000	525	525	200	13100	
YEAR	MONTH	001	002	003	004	005	006	007	TOTAL	REMARKS
1977	Jul	592	899	265	5295	222	314	57	7644	
	Aug	544	923	276	5614	266	353	81	8057	
	Sep	627	821	180	5131	282	354	76	7471	
	Oct	640	997	434	4810	274	346	53	7554	
	Nov	726	1037	334	5296	293	358	62	8106	
	Dec	769	1029	267	5246	217	345	50	7923	
1978	Jan	1013	970	664	5362	256	390	45	8710	
	Feb	720	1022	345	5136	237	399	75	7900	007:Flow Est.
	Mar	693	987	338	5488	231	417	102	8256	
	Apr	800	951	305	5276	248	419	76	8000	001:Flow Est.
	May	800	1005	398	5868	241	441	82	8800	001:Flow Est.
	Jun	800	905	296	5533	228	432	83	8300	001:Flow Est.
	Jul	831	864	178	5666	208	426	76	8249	
	Aug	811	1051	297	5096	209	364	75	7903	
	Sep	777	1147	255	5287	192	394	76	8128	
	Oct	707	1090	135	5524	248	333	75	8112	
	Nov	681	1042	189	5816	202	335	71	8336	
	Dec	757	1068	459	6375	208	338	75	9280	
1979	Jan	618	1016	358	5634	218	353	76	8273	
	Feb	1060	1365	339	6233	177	319	79	9572	002 EX
	Mar	1035	1031	345	6001	253	335	82	9082	
	Apr	838	984	314	5930	204	283	82	8635	
	May	865	860	342	5449	202	304	82	8104	
	Jun	922	798	440	4763	255	357	71	7606	
	Jul	1159	832	352	5033	322	407	117	8222	
	Aug	613	863	379	4233	236	337	159	6819	
	Sep	1035	832	393	4700	276	295	114	7645	
	Oct	995	735	414	4309	231	303	90	7077	
	Nov	907	760	370	4562	191	305	82	7177	
	Dec	967	747	346	4511	175	315	78	7139	
1980	Jan	1037	826	360	4511	171	352	84	7341	
	Feb	769	820	396	4592	203	362	95	7237	
	Mar	1095	668	459	4776	236	350	104	7688	
	Apr	996	753	446	4589	208	328	88	7408	
	May	995	824	231	4264	176	320	109	6919	
	Jun	1006	875	245	4468	195	332	108	7229	
	Jul	1062	848	261	4382	227	310	104	7194	
	Aug	1052	782	263	4382	201	324	88	7092	
	Sep	1008	776	361	4272	177	321	112	7027	
	Oct	674	776	406	4148	201	322	108	6635	
	Nov	1019	737	336	4369	204	351	131	7147	
	Dec	1096	825	586	4663	200	417	104	7891	
1981	Jan	857	828	652	4923	248	422	119	8059	
	Feb	1116	849	695	4872	237	304	128	8201	
	Mar	1083	784	428	4437	226	469	120	7547	
	Apr	1043	832	411	4586	226	425	123	7646	
	May	1082	873	434	4767	233	378	129	7896	
	Jun	1057	880	323	4747	274	382	76	7739	
	Jul	969	937	269	4657	299	326	168	7625	

AV. FLOW (000 GPD)

DESIGN:		1600	1250	1000	8000	525	525	200	13100	
YEAR	MONTH	001	002	003	004	005	006	007	TOTAL	REMARKS
1981	Aug	1029	932	557	4484	335	385	127	7849	
	Sep	725	745	361	4086	279	379	122	6697	
	Oct	638	773	237	3825	240	281	116	6110	
	Nov	759	745	231	3917	222	382	112	6368	
	Dec	928	792	244	3723	528	434	113	6762	005 EX
1982	Jan	819	841	400	4794	295	459	125	7733	
	Feb	905	882	356	4424	393	417	88	7465	
	Mar	1194	781	238	5506	372	413	89	8593	
	Apr	936	872	227	4957	289	383	96	7760	
	May	1047	895	225	5351	279	340	74	8211	
	Jun	1097	1016	268	5406	256	365	112	8520	
	Jul	872	1109	389	6051	257	328	85	9089	
	Aug	1105	875	333	6152	253	357	114	9189	
	Sep	687	958	273	5299	232	314	107	7870	
	Oct	781	803	306	5540	223	354	103	8110	
	Nov	1095	652	310	5198	222	279	96	7852	
	Dec	868	842	334	5367	240	305	99	8055	
1983	Jan	830	783	267	6251	301	322	99	8853	
	Feb	1064	929	311	6082	316	356	109	9167	
	Mar	1117	701	316	9210	319	398	101	12162	004 EX
	Apr	1168	534	313	7915	259	394	71	10654	
	May	745	539	333	6294	224	345	48	8528	
	Jun	839	1089	340	6355	228	331	78	9260	
	Jul	806	899	345	6972	206	325	60	9613	
	Aug	783	777	346	7185	223	388	41	9743	
	Sep	828	824	346	6556	209	378	90	9231	
	Oct	725	826	347	6359	199	356	86	8898	
	Nov	699	848	350	6385	165	377	78	8902	
	Dec	803	902	347	6747	198	310	109	9416	
1984	Jan	936	797	347	7073	169	338	99	9759	
	Feb	961	774	348	6944	225	351	150	9753	
	Mar	1020	690	324	6819	224	321	93	9491	
	Apr	675	735	290	6801	232	299	122	9154	
	May	863	881	289	4710	167	373	119	7402	
	Jun	804	971	273	5337	206	443	125	8159	
	Jul	666	995	296	4866	174	439	122	7558	
	Aug	915	1010	269	4530	228	434	116	7502	
									7780	(86 Month Av.)

001:	Generally Less Than About:	1.0 MGD Generally Less Than About:	63% Of Desig
002:		0.9	72%
003:		0.4	40%
004:		6.5	81%
005:		0.3	57%
006:		0.4	76%
007:		0.125	63%
TOTAL:		9.625	73%

NOTE: Underlined maximum values further demonstrate variability.

MCB CAMP LEJEUNE
SEWAGE PLANT DATA SUMMARY
MONTHLY AV. BOD (mg/1)
LIMIT = 30 (also, weekly av. Limit = 45)
NOTE: PPD rounded to Two significant figures

YEAR	MONTH	001	002	003	004	005	006	007	WT.AV.	PPD	REMARKS
1977	Jul	16	10	9	13	2	4	4	12	810	
	Aug	16	15	5	17	3	6	4	15	960	
	Sep	19	16	6	19	3	4	5	17	1100	
	Oct	16	11	6	5	2	4	6	7	440	001 EX (84% v 85% Limit)
	Nov	27	18	8	12	4	6	7	13	880	
	Dec	27	14	20	9	2	6	8	11	730	001 EX (77% v 85% Limit), 003 EX (82% v 85% Limit)
1978	Jan	35	16	12	12	5	17	11	15	1100	001 4 EXs (30 Limit, 48/64 v 45 Limit, 77% v 85% Limit) 006 EX (48 v 45 Limit)
	Feb	14	7	10	6	3	8	5	7	460	001 EX (83% v 85% Limit)
	Mar	15	7	10	10	3	8	6	10	690	
	Apr	18	10	16	12	6	16	13	13	870	001 EX (84% v 85% Limit)
	May	17	12	12	12	5	12	12	12	880	
	Jun	18	17	13	15	8	12	11	15	1000	
	Jul	13	14	12	14	7	13	11	14	1000	
	Aug	15	16	9	15	5	9	6	14	920	
	Sep	16	16	11	16	8	14	9	16	1100	
	Oct	15	16	12	13	9	16	11	14	950	
	Nov	13	14	9	8	4	7	8	9	630	
	Dec	12	11	9	8	3	6	4	9	700	
1979	Jan	17	11	12	11	5	7	8	11	760	
	Feb	10	10	9	11	4	6	8	10	800	
	Mar	14	10	7	10	4	7	7	10	760	
	Apr	11	11	9	10	3	5	10	10	720	
	May	7	8	7	6	4	6	6	6	410	
	Jun	8	7	8	9	5	5	7	8	510	
	Jul	8	9	7	15	4	5	6	12	823	
	Aug	8	9	7	15	4	5	6	12	680	
	Sep	8	9	6	12	4	5	7	10	570	
	Oct	13	11	9	11	7	9	6	10	590	
	Nov	12	10	9	11	4	7	6	11	660	
	Dec	9	11	9	10	7	6	4	10	600	
1980	Jan	15	13	14	13	4	11	6	13	800	
	Feb	13	15	18	19	6	12	9	17	1000	
	Mar	17	12	15	14	6	12	10	14	900	
	Apr	12	15	14	12	5	11	12	12	740	
	May	9	17	15	14	7	13	10	13	750	
	Jun	9	22	13	19	6	9	11	17	1000	
	Jul	9	21	11	12	6	9	9	12	720	
	Aug	10	16	10	14	5	10	8	13	770	
	Sep	8	15	10	15	5	9	6	13	760	
	Oct	6	11	9	12	4	10	3	11	610	
	Nov	6	11	9	8	5	7	5	8	480	
	Dec	5	15	8	7	4	12	7	8	530	
1981	Jan	6	22	11	10	4	9	6	11	740	
	Feb	8	9	10	13	5	9	8	11	750	
	Mar	5	10	10	9	4	7	6	8	500	

AV. BOD (mg/1)

YEAR	MONTH	001	002	003	004	005	006	007	WT.AV.	PPD	REMARKS
1981	Apr	4	8	7	7	3	5	7	6	380	
	May	4	7	9	8	5	7	6	8	530	
	Jun	5	12	5	8	4	7	5	8	520	
	Jul	3	10	6	7	5	7	5	7	450	006 EX (84% v 85% Limit)
	Aug	4	9	5	6	4	6	5	6	390	
	Sep	4	11	6	10	4	7	7	9	500	
	Oct	7	20	10	13	7	9	9	13	660	
	Nov	9	14	12	17	5	14	7	15	800	
	Dec	10	17	12	16	6	14	11	14	790	006 EX (84% v 85% Limit)
1982	Jan	12	18	20	16	7	13	12	15	970	003 EX (79% v 85% Limit)
	Feb	15	16	17	18	7	13	11	16	1000	003 EX (83% v 85% Limit)
	Mar	9	13	16	13	6	9	12	12	860	003 EX (83% v 85% Limit)
	Apr	9	13	13	15	6	11	12	13	840	
	May	7	13	9	14	5	19	11	13	890	006 EXs (56 v 45 Limit, 78% v 85% Limit)
	Jun	8	13	9	12	4	11	9	11	780	
	Jul	6	10	9	10	3	11	12	9	6800	
	Aug	9	13	6	9	4	11	10	9	690	
	Sep	7	14	6	12	3	9	7	11	720	
	Oct	11	16	8	16	4	11	8	15	1000	
	Nov	11	17	11	21	4	9	9	18	1200	
	Dec	11	15	9	19	4	15	8	17	1100	
1983	Jan	12	19	11	21	4	14	11	19	1400	
	Feb	11	19	12	18	5	18	8	17	1300	006 EX (81% v 85% Limit)
	Mar	13	18	13	17	5	14	14	16	1200	
	Apr	9	16	11	18	5	15	14	16	1400	006 EX (84.6% v 85% Limit)
	May	11	15	13	16	6	12	15	15	1100	006 EX (84% v 85% Limit)
	Jun	8	13	9	14	4	12	9	13	1000	
	Jul	12	18	7	14	5	11	14	14	1100	
	Aug	8	16	6	14	5	7	13	13	1100	
	Sep	9	16	4	13	3	7	7	12	920	
	Oct	10	16	6	18	4	9	8	16	1200	
	Nov	10	19	7	18	4	9	7	16	1200	
	Dec	5	19	6	2	5	12	9	5	390	
1984	Jan	10	19	10	14	6	26	8	14	1100	006 EX (82% v 85% Limit)
	Feb	12	19	10	20	5	23	10	18	1500	004-006 EXs (84%, 84%, 73% v 85% Limit)
	Mar	11	19	14	16	5	16	7	15	1200	005/006 EXs (83%, 76% v 85% Limit)
	Apr	7	18	9	14	5	17	13	14	1100	006 EXs (80% v 85% Limit)
	May	9	14	10	12	5	12	11	12	740	
	Jun	7	11	7	10	6	10	9	10	680	
	Jul	5	8	8	8	4	7	6	8	500	005 EXs (84% v 85% Limit)
	Aug	9	9	6	10	3	5	6	9	560	
									MAX:	1500	
								86 Mo. AV:		880,	i.e. 27% of 3279.5 PPD Limit
									MIN:	390	

* SPECIAL NOTE: When compared to 86 Mo. AV. Flow, 86 Mo. WT. AV. BOD = 14 mg/1 (47% of Limit).

NOTE: Underlined Max. values and fluctuations in above values further demonstrate variations.

MCB CAMP LEJEUNE
SEWAGE PLANT DATA SUMMARY
MONTHLY AV. TSS (mg/1)

YEAR	MONTH	001	002	003	004	005	006	007	REMARKS
1979	Jul	7	11	2	5	1	6	6	
	Aug	7	9	4	10	1	3	3	
	Sep	7	9	3	8	2	3	4	
	Oct	11	13	4	9	1	3	3	
	Nov	10	16	4	7	3	4	5	
	Dec	11	10	2	6	2	5	3	
1978	Jan	18	8	5	5	1	14	2	
	Feb	12	5	5	6	2	6	4	
	Mar	13	5	6	8	3	4	5	001 EX (82% v 85% Limit)
	Apr	9	8	5	7	5	8	8	
	May	11	8	6	8	8	12	11	
	Jun	6	10	8	9	2	5	5	
	Jul	5	10	7	7	1	6	2	
	Aug	7	10	7	11	5	8	1	
	Sep	3	7	3	6	2	6	1	
	Oct	5	9	7	7	3	8	4	
	Nov	4	7	5	7	2	1	3	
	Dec	7	8	6	6	3	11	4	
1979	Jan	11	9	7	10	4	8	5	
	Feb	7	8	4	5	1	5	6	
	Mar	7	10	5	6	2	7	7	
	Apr	8	10	7	7	2	7	8	
	May	7	9	4	6	2	11	6	
	Jun	7	13	5	14	2	6	8	
	Jul	8	10	7	10	3	11	8	
	Aug	8	10	7	10	3	11	8	
	Sep	9	11	7	11	2	6	6	
	Oct	6	8	5	7	2	5	5	
	Nov	9	10	6	7	2	7	6	
	Dec	4	9	4	4	3	3	4	
1980	Jan	6	10	6	6	2	7	4	
	Feb	9	7	4	6	4	10	5	
	Mar	14	9	6	6	4	6	6	
	Apr	4	8	4	5	4	11	5	006 EX (83% v 85% Limit)
	May	5	13	5	7	3	5	6	
	Jun	5	13	5	6	2	4	6	
	Jul	7	12	5	5	3	3	6	
	Aug	6	9	5	6	2	6	3	
	Sep	6	10	5	7	2	4	2	
	Oct	7	10	5	7	1	7	3	
	Nov	8	10	4	5	1	7	2	
	Dec	4	10	4	8	2	6	2	
1981	Jan	6	8	5	7	1	5	4	
	Feb	5	6	6	8	2	8	4	
	Mar	6	5	6	7	2	5	4	
	Apr	4	7	4	6	2	5	5	
	May	5	8	7	7	3	8	6	
	Jun	7	14	7	9	3	7	5	
	Jul	5	8	5	9	3	8	6	
	Aug	3	9	4	7	2	4	2	
	Sep	4	7	3	5	2	3	2	

AV. TSS (mg/1)

YEAR	MONTH	001	002	003	004	005	006	007	REMARKS
1981	Oct	4	8	3	4	1	2	2	
	Nov	6	4	3	5	1	4	2	
	Dec	4	6	3	6	1	6	4	
1982	Jan	10	7	8	7	2	11	4	
	Feb	9	5	9	8	2	5	4	
	Mar	6	5	5	6	3	5	6	
	Apr	6	7	5	5	2	4	5	
	May	5	7	4	6	2	8	4	
	Jun	8	9	4	8	3	15	6	
	Jul	6	9	3	6	2	8	5	
	Aug	3	8	3	8	1	5	2	
	Sep	5	6	2	6	2	7	1	
	Oct	4	7	3	10	3	7	3	
	Nov	4	7	3	10	3	7	3	
	Dec	8	7	3	10	3	10	3	
1983	Jan	12	9	4	9	2	5	3	
	Feb	7	13	11	11	6	14	4	006 EX (83% v 85% Limit)
	Mar	8	9	6	7	4	6	4	
	Apr	5	7	4	9	3	13	5	
	May	9	6	4	7	3	7	6	
	Jun	4	7	3	6	1	12	4	
	Jul	9	10	2	6	3	7	5	
	Aug	5	9	2	7	4	3	3	
	Sep	5	9	2	7	2	4	2	
	Oct	14	8	2	7	2	4	2	
	Nov	3	7	3	5	2	4	2	
	Dec	1	8	2	4	2	3	2	
1984	Jan	4	8	8	4	5	13	2	006 EX (82% v 85% Limit)
	Feb	10	9	6	7	3	11	5	006 EX (80% v 85% Limit)
	Mar	7	7	7	6	2	12	3	003 EX (84.8% v 85% Limit)
	Apr	5	10	5	7	5	16	7	006/007 EXs (74%, 83% v 85% Limit)
	May	5	6	5	4	2	9	5	
	Jun	4	6	4	6	6	9	3	
	Jul	4	4	7	5	3	6	3	
	Aug	5	6	7	6	3	6	3	

MCB CAMP LEJEUNE
SEWAGE PLANT DATA SUMMARY
AV. COLIFORM (No./100ml)
EX = EXCEPTION TO PERMIT LIMITS

YEAR	MONTH	001	002	003	004	005	006	007	REMARKS
1977	Jul	5	4	0	2	0	25	7	006 EX (607 v 400 Limit), 007 EX (608 v 400 Limit)
	Aug	16	2	0	21	0	2	3	
	Sep	2	2	0	2	0	0	1	
	Oct	2	2	0	2	0	0	0	
	Nov	1	1	0	1	0	0	0	
	Dec	0	2	0	1	0	0	0	
1978	Jan	0	0	0	0	0	0	0	
	Feb	2	2	1	1	0	0	0	
	Mar	1	1	1	1	0	0	0	
	Apr	4	1	3	1	0	1	0	
	May	1	2	2	3	1	3	1	
	Jun	0	8	1	3	3	1	0	002 EX (18.500 v 400 Limit)
	Jul	2	12	2	3	0	2	2	
	Aug	0	7	0	8	3	2	0	
	Sep	0	2	0	8	3	2	0	005 EX (500 v 400 Limit)
	Oct	1	1	0	1	3	0	3	
	Nov	1	2	0	1	0	0	3	
	Dec	0	1	3	1	1	0	2	
1979	Jan	1	1	0	1	0	0	4	
	Feb	2	3	2	2	0	2	4	
	Mar	1	5	3	1	0	1	3	
	Apr	1	2	1	2	4	1	2	
	May	1	1	1	4	2	0	11	
	Jun	2	2	1	3	3	8	12	
	Jul	0	3	3	6	0	0	3	
	Aug	0	3	3	6	0	0	3	
	Sep	4	3	1	21	1	29	7	
	Oct	3	1	1	3	0	1	3	
	Nov	2	5	0	6	0	2	2	
	Dec	1	3	1	3	0	0	1	
1980	Jan	1	1	1	1	0	0	0	
	Feb	0	3	1	2	0	0	0	
	Mar	1	2	1	2	0	0-9	5-17	004 EX (292 vs 70 Limit)
	Apr	49	30	0	12	0	5	65	
	May	1	2	0	25	9	10	22	
	Jun	0	0	18	37	1	4	73	007 EX (70 Limit)
	Jul	1	9	10	11	3	2	3	
	Aug	2	4	0	11	2	1	8	
	Sep	0	3	1	29	2	3	12	
	Oct	1	2	2	14	1	3	1	
	Nov	1	2	0	5	4	10	2	
	Dec	1	2	0	13	0	4	2	
1981	Jan	0	2	0	3	1	3	2	
	Feb	0	2	1	9	2	6	2	
	Mar	0	2	0	12	3	4	2	
	Apr	0	1	0	2	2	6	5	
	May	0	1	0	53	0	6	8	
	Jun	1	4	1	27	1	4	8	
	Jul	3	3	2	30	0	4	3	

AV. COLIFORM (No./100ml)

YEAR	MONTH	001	002	003	004	005	006	007	REMARKS
1981	Aug	2	4	1	40+	4	3	11+	
	Sep	2	2	3	23	0	1	1	
	Oct	1	3	0	16	2	0	3	
	Nov	0	2	1	10	0	2	1	
	Dec	1	1	0	4	0	3	2	
1982	Jan	1	1	0	4	2	2	1	
	Feb	1	1	1	4	1	2	1	
	Mar	0	2	1	3	2	1	1	
	Apr	1	2	1	2	1	2	0	
	May	1	2	2	4	1	1	3	
	Jun	0	2	2	25	1	2	2	
	Jul	3	4	5	3	1	1	4	
	Aug	1	1	1	10	4	3	7	
	Sep	1	2	1	3	0	3	2	
	Oct	1	2	1	3	0	3	2	
	Nov	0	1	0	21	1	3	1	
	Dec	1	2	0	2	0	5	2	
1983	Jan	1	2	0	1	1	6	0	
	Feb	0	2	0	4	1	41	2	
	Mar	0	2	2	2	6	3	4	
	Apr	0	1	2	2	0	1	1	
	May	0	4	1	5	1	4	1	
	Jun	2	3	2	5	1	3	30	
	Jul	1	2	1	18	2	5	3	
	Aug	1	2	1	2	1	1	1	
	Sep	1	5	1	6	0	7	7	002 EX (300 v 400 Limit)
	Oct	1	2	1	5	2	2	3	
	Nov	2	30	1	4	2	4	4	002 EX (529 v 400 Limit)
	Dec	0	2	0	2	1	3	3	
1984	Jan	0	1	1	1	1	6	0	
	Feb	1	2	0	3	1	8	3	
	Mar	1	2	1	4	0	5	1	
	Apr	0	2	1	17	2	4	6	
	May	1	2	1	11	0	2	6	
	Jun	1	2	1	5	1	2	24	
	Jul	0	2	0	2	0	2	2	
	Aug	0	1	3	6	1	2	3	

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(703) 387-3995

— ANALYTICAL RESULTS REPORT —

Commander General
Marine Corps Base
Camp Lejeune, North Carolina 28542
ATTN.: Director of NREAD

RE: Water Analysis
CAS Commission No. 6094

REPORT DATE/NUMBER: 19 October 1984/338

SAMPLES COLLECTED: 21 August 1984 to 22 August 1984: 0000 to 2400;
21 August 1984 to 22 August 1984: 1125 to 1125;
22 August 1984: 0908: 0945: 1010: 1110: 1222: 1315

BY: U. S. Navy Personnel

SAMPLES RECEIVED IN LAB: 24 August 1984: 1130

ANALYSIS FOR: 5-Day Biochemical Oxygen Demand (BOD_5), Chemical Oxygen Demand (COD), Color, Cyanide, Fluoride, Total Organic Carbon (TOC), Phenolics, Total Suspended Solids (TSS), Ammonia (NH_3), Nitrate + Nitrite (NO_3+NO_2), Bromide, Silver (Ag), Arsenic (As), Beryllium (Be), Cadmium (Cd), Chromium (Cr), Copper (Cu), Mercury (Hg), Nickel (Ni), Lead (Pb), Selenium (Se), Zinc (Zn), Antimony (Sb), Thallium (Tl), Oils & Grease (O&G)

METHOD OF ANALYSIS: Re: Federal Register, Vol. 41, No. 232, 01 December 1976

The results of our testing are reflected on the following page.

Upon receipt of this Report, should you have any questions or comments concerning same, or if we may be of further service or assistance to you, please do not hesitate to contact us.

Prepared by:

CENTEC ANALYTICAL SERVICES

David F. Tompkins, Chemist

DFT;dlf
Enclosures as Stated

cc: David Goodwin, Atlantic Div., Code 1143, w/Encls.
Naval Facilities Engineering Command
Norfolk, VA 23511

Commander General
Marine Corps Base
Camp Lejeune, NC

CAS No.	Description	BOD_5 (mg/l)	COD (mg/l)	Color (as CU)	Cyanide (mg/l)	Fluoride (mg/l)	TOC (mg/l)
41149	001 Camp Geiger	<1	25	35	<0.01	0.6	12
41150	002 Tarawa Terr.	<1	14	30	<0.01	0.8	10
41151	003 Camp Johnson	<1	34	30	<0.01	0.2	7.8
41152	004 Hadnot Point	<1	30	25	0.01	1.9	11
41153	005 Rifle Range	3	20	30	<0.01	0.3	11
41154	006 Courthouse Bay	2	8	35	<0.01	0.4	1.1
41155	007 Onslow Beach	1	20	35	0.02	0.4	10

Phenolics (mg/l)	TSS (mg/l)	NH_3 (mg/l)	NO_3+NO_2 (mg/l)	Bromide (mg/l)
.008	8	0.03	0.22	<2
.015	18	6.50	4.40	<2
.006	20	2.20	7.37	<2
.01	5	0.50	0.77	<2
<.005	8	3.50	11.6	<2
.011	8	0.05	3.63	<2
<.005	8	0.02	7.59	<2

Ag (mg/l)	As (mg/l)	Be (mg/l)	Cd (mg/l)	Cr (mg/l)	Cu (mg/l)	Hg (mg/l)
<0.02	<0.002	<0.01	<0.01	0.06	0.24	<0.0005
<0.02	<0.002	<0.01	<0.01	0.11	0.50	<0.0005
<0.02	<0.002	<0.01	<0.01	0.08	0.09	<0.0005
<0.02	<0.002	<0.01	<0.01	0.12	0.23	<0.0005
<0.02	<0.002	<0.01	<0.01	0.06	0.24	<0.0005
<0.02	<0.002	<0.01	<0.01	0.08	0.37	<0.0005
<0.02	<0.002	<0.01	<0.01	0.11	0.25	<0.0005

Ni (mg/l)	Pb (mg/l)	Se (mg/l)	Zn (mg/l)	Sb (mg/l)	Tl (mg/l)
0.90	<0.002	<0.005	0.04	0.002	<0.002
0.16	<0.002	<0.005	0.03	<0.002	<0.002
0.08	0.04	<0.005	0.11	<0.002	<0.002
0.22	0.06	<0.005	0.10	0.002	<0.002
0.22	<0.002	<0.005	0.04	<0.002	<0.002
0.41	0.04	<0.005	0.04	<0.002	<0.002
0.57	0.05	<0.005	0.15	0.023	<0.002

Commander General
Marine Corps Base
Camp Lejeune, NC

CAS No.	Description	COD (mg/l)	TSS (mg/l)	NH_3 (mg/l)	O&G (mg/l)
41156	Onslow Beach Water Treatment Pond	55	20	0.11	
41157	Hadnot Point Water Plant Backwash	Cancelled	25	0.55	
41158	Hadnot Point Steam Plant Blower Blowdown				12
41159	Bldg. 1450 Outfall				79
41160	MCAS "0" Pool Backwash	Cancelled	10	6.00	
41161	MCAS "E" Pool Backwash	45	12	5.70	

COMPUCHEM LABORATORIES

CENTEC ANALYTICAL SERVICES, INC.
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— ANALYTICAL RESULTS REPORT —

Mr. David Goodwin
Atlantic Division, Code 1143
Naval Facilities Engineering
Command
Norfolk, Virginia 23511

RE: Water Analysis
CAS Commission No. 6094

REPORT DATE/NUMBER: 01 October 1984/325

SAMPLES COLLECTED: 22 August 1984: 0415: 1225: 1325

BY: U. S. Navy Personnel

SAMPLES RECEIVED IN LAB: 24 August 1984: 1130

ANALYSIS FOR: Volatile Organics (VOA)

METHOD OF ANALYSIS: See enclosed data.

CAS No.	Description	VOA
41142	001 Camp Geiger	*
41144	003 Camp Johnson	*
41146	005 Rifle Range	*

* Report is enclosed from CompuChem Laboratories.

Prepared by:

CENTEC ANALYTICAL SERVICES

David F. Tompkins, Chemist

DFT;dlf
Enclosure as Stated

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— ANALYTICAL RESULTS REPORT —

Mr. David Goodwin
Atlantic Division, Code 1143
Naval Facilities Engineering
Command
Norfolk, Virginia 23511

RE: Water Analysis
CAS Commission No. 6094

REPORT DATE/NUMBER: 25 September 1984/323

SAMPLES COLLECTED: 22 August 1984: 0930
22 August 1984: 1135

BY: U. S. Navy Personnel

SAMPLES RECEIVED IN LAB: 24 August 1984: 1130

ANALYSIS FOR: Volatile Organics (VOA)*

METHOD OF ANALYSIS: See enclosed data.

CAS No.	Description	VOA
41145	004 Hadnot Point	*
41147	006 Coverhouse Bay	*

* Report is enclosed from CompuChem Laboratories.

Prepared by:

CENTEC ANALYTICAL SERVICES

David F. Tompkins,
Chemist

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— ANALYTICAL RESULTS REPORT —

Mr. David Goodwin
Atlantic Division, Code 1143
Naval Facilities Engineering
Command
Norfolk, Virginia 23511

RE: Water Analysis
CAS Commission No. 6094

REPORT DATE/NUMBER: 02 October 1984/327

SAMPLE COLLECTED: 22 August 1984: 1450; 30 August 1984: 0910

BY: U. S. Navy Personnel

SAMPLE RECEIVED IN LAB: 24 August 1984: 1130; 05 September 1984: 0730

ANALYSIS FOR: Volatile Organics (~~VOA~~)

METHOD OF ANALYSIS: See enclosed data.

CAS No.	Description	VOA
41143	002 Tarawa Terrace	*
41695	007 Onslow Beach	*

* Report is enclosed from CompuChem Laboratories.

Should you have any questions or comments concerning the enclosed information, please feel free to contact our office.

Prepared by:

CENTEC ANALYTICAL SERVICES

David F. Tompkins, Chemist

DFT;dlf
Enclosure as Stated

LABORATORY CHRONICLE

SAMPLE IDENTIFIER: 41142
COMPUCHEM SAMPLE NUMBER: 34591

	Date
Received/Refrigerated	08/29/84
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	09/07/84
2. Acids	Not Requested
3. Base/Neutrals	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Metals	Not Requested
2. Cyanide	Not Requested
3. Phenol	Not Requested

COMPOUND LIST - VOLATILES ORGANICS

SAMPLE IDENTIFIER: 41142
COMPUCHEM SAMPLE NUMBER: 34591

		CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
1V.	CHLOROMETHANE	BDL	10
2V.	VINYL CHLORIDE	BDL	10
3V.	CHLOROETHANE	BDL	10
4V.	BROMOMETHANE	BDL	10
5V.	ACROLEIN	BDL	100
6V.	ACRYLONITRILE	BDL	100
7V.	METHYLENE CHLORIDE	11	10
8V.	TRICHLOROFLUOROMETHANE	BDL	10
9V.	1,1-DICHLOROETHYLENE	BDL	10
10V.	1,1-DICHLOROETHANE	BDL	10
11V.	TRANS-1,2-DICHLOROETHYLENE	BDL	10
12V.	CHLOROFORM	BDL	10
13V.	1,2-DICHLOROETHANE	BDL	10
14V.	1,1,1-TRICHLOROETHANE	BDL	10
15V.	CARBON TETRACHLORIDE	BDL	10
16V.	BROMODICHLOROMETHANE	BDL	10
17V.	1,2-DICHLOROPROPANE	BDL	10
18V.	TRANS-1,3-DICHLOROPROPENE	BDL	10
19V.	TRICHLOROETHYLENE	BDL	10
20V.	BENZENE	BDL	10
21V.	CIS-1,3-DICHLOROPROPENE	BDL	10
22V.	1,1,2-TRICHLOROETHANE	BDL	10
23V.	DIBROMOCHLOROMETHANE	BDL	10
24V.	BROMOFORM	BDL	10
25V.	1,1,2,2-TETRACHLOROETHYLENE	BDL	10
26V.	1,1,2,2-TETRACHLOROETHANE	BDL	10
27V.	TOLUENE	BDL	10
28V.	CHLOROBENZENE	BDL	10
29V.	ETHYLBENZENE	BDL	10
30V.	2-CHLOROETHYL VINYL ETHER	BDL	10
31V.	DICHLORODIFLUOROMETHANE†	BDL	
32V.	BIS(CHLOROMETHYL)ETHER†	BDL	

BDL=BELOW DETECTION LIMIT

†See Data Report Notice

LABORATORY CHRONICLE

SAMPLE IDENTIFIER: 41143
COMPUCHEM SAMPLE NUMBER: 34592

	Date
Received/Refrigerated	8-29-84
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	9-7-84
2. Acid	Not Requested
3. Base/Neutrals	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Metals	Not Requested
2. Cyanide	Not Requested
3. Phenols	Not Requested

COMPOUND LIST - VOLATILES ORGANICS

SAMPLE IDENTIFIER: 41143
COMPUCHEM SAMPLE NUMBER: 34592

		CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
1V.	CHLOROMETHANE	BDL	10
2V.	VINYL CHLORIDE	BDL	10
3V.	CHLOROETHANE	BDL	10
4V.	BROMOMETHANE	BDL	10
5V.	ACROLEIN	BDL	100
6V.	ACRYLONITRILE	BDL	100
7V.	METHYLENE CHLORIDE	BDL	10
8V.	TRICHLOROFLUOROMETHANE	BDL	10
9V.	1,1-DICHLOROETHYLENE	BDL	10
10V.	1,1-DICHLOROETHANE	BDL	10
11V.	TRANS-1,2-DICHLOROETHYLENE	BDL	10
12V.	CHLOROFORM	BDL	10
13V.	1,2-DICHLOROETHANE	BDL	10
14V.	1,1,1-TRICHLOROETHANE	BDL	10
15V.	CARBON TETRACHLORIDE	BDL	10
16V.	BROMODICHLOROMETHANE	BDL	10
17V.	1,2-DICHLOROPROPANE	BDL	10
18V.	TRANS-1,3-DICHLOROPROPENE	BDL	10
19V.	TRICHLOROETHYLENE	BDL	10
20V.	BENZENE	BDL	10
21V.	CIS-1,3-DICHLOROPROPENE	BDL	10
22V.	1,1,2-TRICHLOROETHANE	BDL	10
23V.	DIBROMOCHLOROMETHANE	BDL	10
24V.	BROMOFORM	BDL	10
25V.	1,1,2,2-TETRACHLOROETHYLENE	20	10
26V.	1,1,2,2-TETRACHLOROETHANE	BDL	10
27V.	TOLUENE	BDL	10
28V.	CHLOROBENZENE	BDL	10
29V.	ETHYLBENZENE	BDL	10
30V.	2-CHLOROETHYL VINYL ETHER	BDL	10
31V.	DICHLORODIFLUOROMETHANE†	BDL	
32V.	BIS(CHLOROMETHYL)ETHER†	BDL	

BDL=BELOW DETECTION LIMIT

†See Data Report Notice

LABORATORY CHRONICLE

SAMPLE IDENTIFIER: 41144
COMPUCHEM SAMPLE NUMBER: 34593

	Date
Received/Refrigerated	08/29/84
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	09/07/84
2. Acids	Not Requested
3. Base/Neutrals	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Metals	Not Requested
2. Cyanide	Not Requested
3. Phenol	Not Requested

COMPOUND LIST - VOLATILES ORGANICS

SAMPLE IDENTIFIER: 41144
COMPUCHEM SAMPLE NUMBER: 34593

		CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
1V.	CHLOROMETHANE	BDL	10
2V.	VINYL CHLORIDE	BDL	10
3V.	CHLOROETHANE	BDL	10
4V.	BROMOMETHANE	BDL	10
5V.	ACROLEIN	BDL	100
6V.	ACRYLONITRILE	BDL	100
7V.	METHYLENE CHLORIDE	BDL	10
8V.	TRICHLOROFLUOROMETHANE	BDL	10
9V.	1,1-DICHLOROETHYLENE	BDL	10
10V.	1,1-DICHLOROETHANE	BDL	10
11V.	TRANS-1,2-DICHLOROETHYLENE	BDL	10
12V.	CHLOROFORM	76	10
13V.	1,2-DICHLOROETHANE	BDL	10
14V.	1,1,1-TRICHLOROETHANE	BDL	10
15V.	CARBON TETRACHLORIDE	BDL	10
16V.	BROMODICHLOROMETHANE	35	10
17V.	1,2-DICHLOROPROPANE	BDL	10
18V.	TRANS-1,3-DICHLOROPROPENE	BDL	10
19V.	TRICHLOROETHYLENE	BDL	10
20V.	BENZENE	BDL	10
21V.	CIS-1,3-DICHLOROPROPENE	BDL	10
22V.	1,1,2-TRICHLOROETHANE	BDL	10
23V.	DIBROMOCHLOROMETHANE	12	10
24V.	BROMOFORM	BDL	10
25V.	1,1,2,2-TETRACHLOROETHYLENE	BDL	10
26V.	1,1,2,2-TETRACHLOROETHANE	BDL	10
27V.	TOLUENE	BDL	10
28V.	CHLOROBENZENE	BDL	10
29V.	ETHYLBENZENE	BDL	10
30V.	2-CHLOROETHYL VINYL ETHER	BDL	10
31V.	DICHLORODIFLUOROMETHANE†	BDL	
32V.	BIS(CHLOROMETHYL)ETHER†	BDL	

BDL=BELOW DETECTION LIMIT

†See Data Report Notice

LABORATORY CHRONICLE

SAMPLE IDENTIFIER: 41145
COMPUCHEM SAMPLE NUMBER: 34594

	Date
Received/Refrigerated	8-29-84
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	9-7-84
2. Acid	Not Requested
3. Base/Neutrals	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Metals	Not Requested
2. Cyanide	Not Requested
3. Phenols	Not Requested

004

HADNOT POINT STP

COMPOUND LIST - VOLATILES ORGANICS

SAMPLE IDENTIFIER: 41145
COMPUCHEM SAMPLE NUMBER: 34594

		CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
1V.	CHLOROMETHANE	BDL	10
2V.	VINYL CHLORIDE	BDL	10
3V.	CHLOROETHANE	BDL	10
4V.	BROMOMETHANE	BDL	10
5V.	ACROLEIN	BDL	100
6V.	ACRYLONITRILE	BDL	100
7V.	METHYLENE CHLORIDE	BDL	10
8V.	TRICHLOROFLUOROMETHANE	BDL	10
9V.	1,1-DICHLOROETHYLENE	BDL	10
10V.	1,1-DICHLOROETHANE	BDL	10
11V.	TRANS-1,2-DICHLOROETHYLENE	17	10
12V.	CHLOROFORM	BDL	10
13V.	1,2-DICHLOROETHANE	BDL	10
14V.	1,1,1-TRICHLOROETHANE	BDL	10
15V.	CARBON TETRACHLORIDE	BDL	10
16V.	BROMODICHLOROMETHANE	BDL	10
17V.	1,2-DICHLOROPROPANE	BDL	10
18V.	TRANS-1,3-DICHLOROPROPENE	BDL	10
19V.	TRICHLOROETHYLENE	30	10
20V.	BENZENE	BDL	10
21V.	CIS-1,3-DICHLOROPROPENE	BDL	10
22V.	1,1,2-TRICHLOROETHANE	BDL	10
23V.	DIBROMOCHLOROMETHANE	BDL	10
24V.	BROMOFORM	BDL	10
25V.	1,1,2,2-TETRACHLOROETHYLENE	BDL	10
26V.	1,1,2,2-TETRACHLOROETHANE	BDL	10
27V.	TOLUENE	BDL	10
28V.	CHLOROBENZENE	BDL	10
29V.	ETHYLBENZENE	BDL	10
30V.	2-CHLOROETHYL VINYL ETHER	BDL	10
31V.	DICHLORODIFLUOROMETHANE†	BDL	
32V.	BIS(CHLOROMETHYL)ETHER†	BDL	

BDL=BELOW DETECTION LIMIT

†See Data Report Notice

LABORATORY CHRONICLE

SAMPLE IDENTIFIER: 41146
COMPUCHEM SAMPLE NUMBER: 34595

	Date
Received/Refrigerated	08/29/84
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	09/07/84
2. Acids	Not Requested
3. Base/Neutrals	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Metals	Not Requested
2. Cyanide	Not Requested
3. Phenol	Not Requested

RIFLE RANGE STP

COMPOUND LIST - VOLATILES ORGANICS

SAMPLE IDENTIFIER: 41146
COMPUCHEM SAMPLE NUMBER: 34595

		CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
1V.	CHLOROMETHANE	BDL	10
2V.	VINYL CHLORIDE	BDL	10
3V.	CHLOROETHANE	BDL	10
4V.	BROMOMETHANE	BDL	10
5V.	ACROLEIN	BDL	100
6V.	ACRYLONITRILE	BDL	100
7V.	METHYLENE CHLORIDE	BDL	10
8V.	TRICHLOROFLUOROMETHANE	BDL	10
9V.	1,1-DICHLOROETHYLENE	BDL	10
10V.	1,1-DICHLOROETHANE	BDL	10
11V.	TRANS-1,2-DICHLOROETHYLENE	BDL	10
12V.	CHLOROFORM	110	10
13V.	1,2-DICHLOROETHANE	BDL	10
14V.	1,1,1-TRICHLOROETHANE	BDL	10
15V.	CARBON TETRACHLORIDE	BDL	10
16V.	BROMODICHLOROMETHANE	22	10
17V.	1,2-DICHLOROPROPANE	BDL	10
18V.	TRANS-1,3-DICHLOROPROPENE	BDL	10
19V.	TRICHLOROETHYLENE	BDL	10
20V.	BENZENE	BDL	10
21V.	CIS-1,3-DICHLOROPROPENE	BDL	10
22V.	1,1,2-TRICHLOROETHANE	BDL	10
23V.	DIBROMOCHLOROMETHANE	BDL	10
24V.	BROMOFORM	BDL	10
25V.	1,1,2,2-TETRACHLOROETHYLENE	BDL	10
26V.	1,1,2,2-TETRACHLOROETHANE	BDL	10
27V.	TOLUENE	BDL	10
28V.	CHLOROBENZENE	BDL	10
29V.	ETHYLBENZENE	BDL	10
30V.	2-CHLOROETHYL VINYL ETHER	BDL	10
31V.	DICHLORODIFLUOROMETHANE†	BDL	
32V.	BIS(CHLOROMETHYL)ETHER†	BDL	

BDL=BELOW DETECTION LIMIT

†See Data Report Notice

LABORATORY CHRONICLE

SAMPLE IDENTIFIER: 41147
COMPUCHEM SAMPLE NUMBER: 34596

	Date
Received/Refrigerated	8-29-84
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	9-7-84
2. Acid	Not Requested
3. Base/Neutrals	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Metals	Not Requested
2. Cyanide	Not Requested
3. Phenols	Not Requested

COMPOUND LIST - VOLATILES ORGANICS

SAMPLE IDENTIFIER: 41147
COMPUCHEM SAMPLE NUMBER: 34596

		CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
1V.	CHLOROMETHANE	BDL	10
2V.	VINYL CHLORIDE	BDL	10
3V.	CHLOROETHANE	BDL	10
4V.	BROMOMETHANE	BDL	10
5V.	ACROLEIN	BDL	100
6V.	ACRYLONITRILE	BDL	100
7V.	METHYLENE CHLORIDE	BDL	10
8V.	TRICHLOROFLUOROMETHANE	BDL	10
9V.	1,1-DICHLOROETHYLENE	BDL	10
10V.	1,1-DICHLOROETHANE	BDL	10
11V.	TRANS-1,2-DICHLOROETHYLENE	BDL	10
12V.	CHLOROFORM	110	10
13V.	1,2-DICHLOROETHANE	BDL	10
14V.	1,1,1-TRICHLOROETHANE	BDL	10
15V.	CARBON TETRACHLORIDE	BDL	10
16V.	BROMODICHLOROMETHANE	42	10
17V.	1,2-DICHLOROPROPANE	BDL	10
18V.	TRANS-1,3-DICHLOROPROPENE	BDL	10
19V.	TRICHLOROETHYLENE	BDL	10
20V.	BENZENE	BDL	10
21V.	CIS-1,3-DICHLOROPROPENE	BDL	10
22V.	1,1,2-TRICHLOROETHANE	BDL	10
23V.	DIBROMOCHLOROMETHANE	10	10
24V.	BROMOFORM	BDL	10
25V.	1,1,2,2-TETRACHLOROETHYLENE	BDL	10
26V.	1,1,2,2-TETRACHLOROETHANE	BDL	10
27V.	TOLUENE	BDL	10
28V.	CHLOROBENZENE	BDL	10
29V.	ETHYLBENZENE	BDL	10
30V.	2-CHLOROETHYL VINYL ETHER	BDL	10
31V.	DICHLORODIFLUOROMETHANE†	BDL	
32V.	BIS(CHLOROMETHYL)ETHER†	BDL	

BDL=BELOW DETECTION LIMIT

†See Data Report Notice

LABORATORY CHRONICLE

SAMPLE IDENTIFIER: 41695
COMPUCHEM SAMPLE NUMBER: 35300

	Date
Received/Refrigerated	9-10-84
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	9-17-84
2. Acid	Not Requested
3. Base/Neutrals	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Metals	Not Requested
2. Cyanide	Not Requested
3. Phenols	Not Requested

COMPOUND LIST - VOLATILES ORGANICS

SAMPLE IDENTIFIER: 41695
COMPUCHEM SAMPLE NUMBER: 35300

		CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
1V.	CHLOROMETHANE	BDL	10
2V.	VINYL CHLORIDE	BDL	10
3V.	CHLOROETHANE	BDL	10
4V.	BROMOMETHANE	BDL	10
5V.	ACROLEIN	BDL	100
6V.	ACRYLONITRILE	BDL	100
7V.	METHYLENE CHLORIDE	BDL	10
8V.	TRICHLOROFLUOROMETHANE	BDL	10
9V.	1,1-DICHLOROETHYLENE	BDL	10
10V.	1,1-DICHLOROETHANE	BDL	10
11V.	TRANS-1,2-DICHLOROETHYLENE	BDL	10
12V.	CHLOROFORM	51	10
13V.	1,2-DICHLOROETHANE	BDL	10
14V.	1,1,1-TRICHLOROETHANE	BDL	10
15V.	CARBON TETRACHLORIDE	BDL	10
16V.	BROMODICHLOROMETHANE	10	10
17V.	1,2-DICHLOROPROPANE	BDL	10
18V.	TRANS-1,3-DICHLOROPROPENE	BDL	10
19V.	TRICHLOROETHYLENE	BDL	10
20V.	BENZENE	BDL	10
21V.	CIS-1,3-DICHLOROPROPENE	BDL	10
22V.	1,1,2-TRICHLOROETHANE	BDL	10
23V.	DIBROMOCHLOROMETHANE	BDL	10
24V.	BROMOFORM	BDL	10
25V.	1,1,2,2-TETRACHLOROETHYLENE	BDL	10
26V.	1,1,2,2-TETRACHLOROETHANE	BDL	10
27V.	TOLUENE	BDL	10
28V.	CHLOROBENZENE	BDL	10
29V.	ETHYLBENZENE	BDL	10
30V.	2-CHLOROETHYL VINYL ETHER	BDL	10
31V.	DICHLORODIFLUOROMETHANE†	BDL	
32V.	BIS(CHLOROMETHYL)ETHER†	BDL	

BDL=BELOW DETECTION LIMIT

†See Data Report Notice

COMPUCHEM
LABORATORIES

REPORT OF DATA

SAMPLE IDENTIFIER:	COMPUCHEM SAMPLE NUMBER:
41142	34591
41146	34595
41144	34593

SUBMITTED TO:

Mr. David Tompkins
Centec
2160 Industrial Drive
Salem, VA 24153

Diana A Scammell

DIANA A. SCAMMELL
TECHNICAL SPECIALIST, OPERATIONS

R. L. MYERS, PH.D., PRESIDENT

ROBERT E. MEIERER
DIRECTOR OF QUALITY ASSURANCE

COMPUCHEM
LABORATORIES

REPORT OF DATA

SAMPLE IDENTIFIER: 41145
41147

COMPUCHEM SAMPLE NUMBER: 34594
34596

SUBMITTED TO:

Mr. David Tompkins
Centec
2160 Industrial Drive
Salem, VA 24153

Diana A. Scammell
DIANA A. SCAMMELL
TECHNICAL SPECIALIST, OPERATIONS

R. L. MYERS, PH.D., PRESIDENT

ROBERT E. MEIERER
DIRECTOR OF QUALITY ASSURANCE

COMPUCHEM
LABORATORIES

REPORT OF DATA

SAMPLE IDENTIFIER: 41143
41695

COMPUCHEM SAMPLE NUMBER: 34592
35300

SUBMITTED TO:

Mr. David Tompkins
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2160 Industrial Drive
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Diana A. Scammell

DIANA A. SCAMMELL
TECHNICAL SPECIALIST, OPERATIONS

R. L. MYERS, PH.D., PRESIDENT

ROBERT E. MEIERER
DIRECTOR OF QUALITY ASSURANCE

DATA REPORT NOTICE

CompuChem employs Methods 624 and 625 for GC/MS analysis of organics in liquid matrices. These methods were proposed on December 3, 1979 by the U.S.E.P.A. in Volume 44 of the Federal Register. These methods were subsequently revised and reissued in July, 1982 as publication EPA-600/4-82-057. The EPA Environmental Monitoring and Support Laboratory (EMSL-Cincinnati) has subsequently issued method modifications which provide for the analysis of solid matrices. These modifications specify changes in the sample preparation procedures.

Additionally, for solid samples detection limits and any analytical results reported are based on processing the method specified sample size of as-received material.

The referenced methods are no longer appropriate for several of the original priority pollutant compounds. This is due to either the deletion from the toxic pollutant list (40 CFR Part 401) by EPA or the determination by EPA that the referenced methods may not be optimized for certain compounds (EPA-600/4-82-057) originally incorporated by the methods.

CompuChem® presents these compounds in its sample data report for completeness as many of the government compound list forms continue to display the affected compounds. For consistency, these compounds are reported as "BDL" or "Below Detection Limit" as they are either not likely to exist in the sample or are not likely to be detected by the method. Those compounds which have actually been deleted are listed below with the Federal Register deletion reference.

Compound Name	GC/MS Fraction	Federal Register	Date
Dichlorodifluoromethane	Volatile	46FR2264	1/8/81
*Trichlorofluoromethane	Volatile	46FR2264	1/8/81
Bis(Chloromethyl)Ether	Volatile	46FR10723	2/4/81

*While this compound has been deleted, CompuChem® continues to identify and quantitate for it.

MCB CAMP LEJEUNE

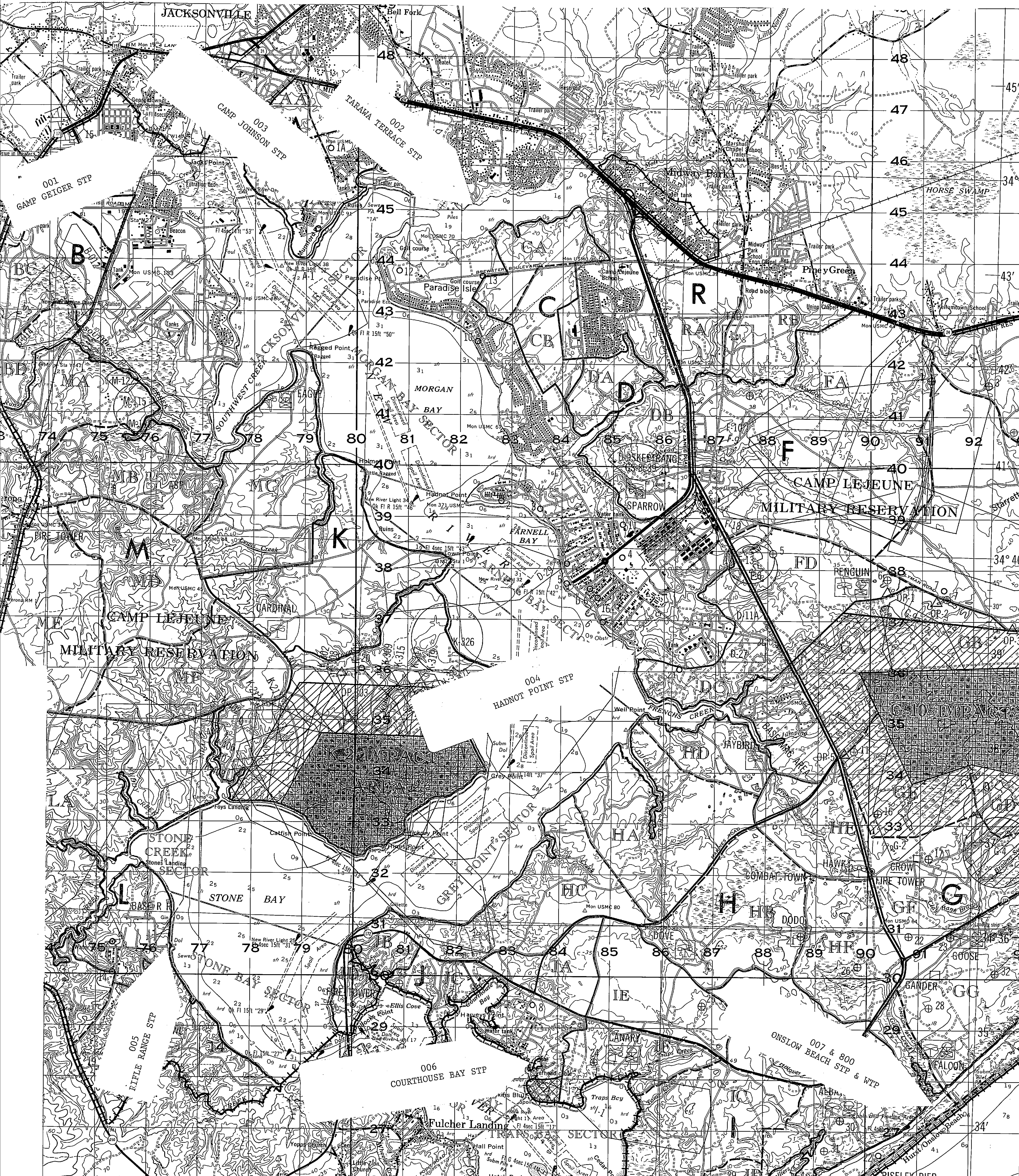
STORM DRAIN DATA SUMMARY

NOTE: (1) GPD AND PPD ROUNDED TO TWO SIGNIFICANT FIGURES
(2) OIL DETECTION OF 1 mg/1 GIVES FALSE "HIGH" READINGS
(3) EX = EXCEPTION TO PERMIT LIMITS

YEAR	QTR	FLOW (MGD)	OIL (WT.AV.) (mg/1)	OIL (GPD)	OIL EXs	TSS (WT.AV.) (mg/1)	TSS (PPD)	TSS EXs	pH EXs	REMARKS
FY-77	4	116	9	1,000	20	25	24,000	10	10	
FY-78	1	71	3	210	10	14	8,340	8	10	
	2	318	10	3,200	14	17	45,000	10	9	
	3	461	77	36,000	6	5	19,000	4	4	
	4	10	30	300	8	17	1,400	7	6	
FY-79	1	18	31	600	7	25	3,800	13	8	
	2	87	12	1,000	4	10	7,300	4	7	
	3	40	2	80	4	17	5,700	16	5	
	4	4	6	24	4	4	130	7	7	
FY-80	1	31	1	31	2	6	1,600	5	9	
	2	35	1	35	3	13	3,800	9	9	
	3	30	2	60	3	5	1,300	7	5	
	4	15	1	15	3	5	630	4	6	
FY-81	1	10	1	10	2	9	750	5	7	
	2	59	1	59	4	12	5,900	7	4	
	3	48	1	48	2	6	2,400	7	4	
	4	29	14	410	3	111	21,000	2	4	
FY-82	1	20	4	80	3	36	6,000	7	4	
	2	45	2	90	2	63	24,000	3	2	
	3	35	1	35	2	21	6,100	4	3	
	4	13	2	26	0	34	3,700	2	3	
FY-83	1	16	3	48	2	5	670	5	3	
	2	36	1	36	2	52	16,000	7	7	
	3	30	2	60	3	29	7,300	1	5	
	4	9	1	9	2	6	450	3	1	
FY-84	1	42	4	170	2	62*	22,000*	6	2	*11 mg/1, 4,000 PPD w/o SD42:0.350 MGD, 6,300 mg/1
	2	56	7	400	2	11	5,100	3	4	
	3	14	1	14	0	12	1,600	0	0	
Jul/Aug		12	1	12	0	7	700	2	0	

NOTE: Quality Control confirmed by:

(1) NEESA ltr 2522:NSS Ser 6489 of 15 Dec 78
(2) NEESA ltr 2522:NSS Ser 1079 of 12 Mar 79
(3) NEESA ltr 222:K17P 6240/G:132B Ser 1658 of 9 Dec 80


JACKSONVILLE
001
CAMP GEIGER STP
003
CAMP JOHNSON STP
002
TARAWA TERRACE STP
004
HADNOT POINT STP
005
RIFLE RANGE STP
006
COURTHOUSE BAY STP
007 & 800
ONSLOW BEACH STP & WTP
Bell Fork
Midway Park
Piney Green
HORSE SWAMP
Paradise Isle
Paradise Pt.
Ragged Point
Jacks Point
Beacon
MORGAN BAY
MORGAN BAY SECTOR
JACKSONVILLE SECTOR
SOUTHWEST CREEK
Holmes Point
Hadnot Point
FARNELL BAY
FARNELL BAY SECTOR
NEW RIVER
CAMP LEJEUNE
MILITARY RESERVATION
SPARROW
PENGUIN
CARDINAL
EAGLE
FIRE TOWER
K-2 IMPACT AREA
G-10 IMPACT
FRENCHS CREEK
JAYBIRD
Foys Landing
Catfish Point
Hickory Point
Grey Point
Well Point
STONE CREEK SECTOR
STONE BAY
STONE BAY SECTOR
GREY POINT SECTOR
COMBAT TOWN
HAWK
CROW
DODO
DOVE
GOOSE
GANDER
FALOON
CANARY
BLUEBIRD
Ellis Cove
Harveys Point
Fulcher Landing
Traps Bay
TRAPS BAY SECTOR
Sneads Ferry
Hall Point
Hatch Rock
Peru
Swan Point
RISELEY PIER
ONSLOW SOUTH TOWER
ONSLOW BAY
Unexploded Ordnance Rep (1974)
A
B
C
D
E
F
G
H
I
J
K
L
M
R

File W/ Danny —

DEPARTMENT OF THE NAVY SELF-DUPLICATING NOTE

Use only for an informal, preferably hand-written note. Make duplicate only when required for follow-up or working file. See correspondence manual for formal, official memoranda.

TO: BMAIN / Utilities NREAD

SUBJ: NPDES Permit Renewal; Status

- [ ] ACTION
- [ ] AS DISCUSSED
- [ ] CALL/SEE ME
- [ ] COMMENT/CLEAR
- [ ] COORDINATE
- [ ] CORRECTION
- [x] INFORMATION
- [ ] PREPARE DRAFT
- [ ] PREPARE FOR SIGNATURE
- [ ] REPORT BACK
- [ ] RETURN
- [ ]

As discussed today w/ Meg Kerr, NCDEM, Raleigh: No action's been taken on renewal as far as wasteload allocation because of mix-up btwn Wilm-ton + Raleigh: W-ton forgot to ask Raleigh for WLA, etc.

We should expect some action in next 2-3 weeks - I'll keep in touch for results.

Call if ?'s.

FROM: Bob

DATE 5/16

EXT. 3034

OPNAV 5216/142 (Rev. 5-74) S/N 0107-LF-778-7110 ☆U.S. Government Printing Office: 1982—505-106/8666 2-1

NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIV
Marine Corps Base
Camp Lejeune, North Carolina 28542

19 MAr 85
(Date)

From: Supervisory Ecologist

To: Environmental Engineer

Subj: NPDES Related Effluent Analysis

Encl (1) Oil & Grease Analysis of 14 MAr 85

Encl (2) CompuChem Laboratories Ltr of 15 NOV 84

1. Enclosure (1) and (2) are fowarded per your request and our discussion last week.

Danny Sharpe

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1.

Announcements

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IT COSTS SO LITTLE

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FREE

If you sell your item before the 12 days you may request a refund or credit at an applicable rate.

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PLEASE NOTE---

In case of error the Classified Department must be notified and is only responsible for one days incorrect insertion. All advertising is subject to approval of publisher.

Commercial rates svaliable upon request.

2.

Legal Notices

PUBLIC NOTICE
STATE OF NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION
POST OFFICE BOX 27687
RALEIGH, NORTH CAROLINA
27611-7687
NOTIFICATION OF INTENT TO ISSUE A STATE NPDES PERMIT

Public notice of intent to issue a State NPDES permit to the following:

1. US Marine Corps, Camp Lejeune, Onslow Beach Sewage Treatment Plant, Onslow County, NPDES No. NC0063053 (renewal and modification). There is one existing discharge of treated domestic wastewater into the Intracoastal Waterway located at the end of Mockup Road. The modification is to establish a separate permit for this sewage treatment plant.

2. US Marine Corps, Camp Lejeune, Rifle Range Sewage Treatment Plant, Onslow County, NPDES No. NC0063037 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located off of NC Highway 210 at the Base Rifle Range, just north of NC Highway 172. The modification is to establish a separate permit for this sewage treatment plant.

3. US Marine Corps, Camp Lejeune, Camp Geiger Sewage Treatment Plant, Onslow County, NPDES No. NC0062995 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located east of US Highway 17, just north of Brinson Creek. The modification is to establish a separate permit for this sewage treatment plant.

4. US Marine Corps, Camp Lejeune, Hadnot Point Sewage Treatment Plant, Onslow County, NPDES No. NC0063029 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located east of Sneads Ferry Road, just north of Cogdels Creek. The modification is to establish a separate permit for this sewage treatment plant.

5. US Marine Corps, Camp Lejeune, Courthouse Sewage Treatment Plant, Onslow County, NPDES No. NC0063045 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located south of NC Highway 172 in a section of the Base known as Canary, east of the New River. The modification is to establish a separate permit for this sewage treatment plant.

6. US Marine Corps, Camp Lejeune, Tarawa Terrace Sewage Treatment Plant, Onslow County, NPDES No. NC0063002 (renewal and modification). There is one existing discharge of treated domestic wastewater into Northeast Creek located south of NC Highway 24 just before crossing Northeast Creek on NC Highway 24. The modification is to establish a separate permit for this sewage treatment plant.

7. US Marine Corps, Camp Lejeune, Camp Johnson Sewage Treatment Plant, Onslow County, NPDES No. NC0063011 (renewal and modification). There is one existing discharge of treated domestic wastewater into Northeast Creek located south of NC Highway 24 near the confluence of Northeast Creek and the New River. The modification is to establish a separate permit for this sewage treatment plant.

2.

Legal Notices

8. Webb Creek Water & Sewage, Inc., Queens Creek Development, Onslow County, NPDES No. NC0062642 (new). There are two proposed discharges of treated domestic wastewater into Wallace Creek located on NC Highway 24 and into Webb Creek on NCSR 1432.

9. Horse Creek Farms Utilities Corp. - Rocky Run Road Tract, Onslow County, NPDES No. NC0062359 (new and modification). There is one proposed discharge of treated domestic wastewater into an unnamed tributary to Little Northeast Creek located near the intersection of NCSR 1427 and 1423 in Jacksonville. The modification is for a name change and to add limits for a 0.050 MGD flow rate.

On the basis of preliminary staff review and application of Article 21 of Chapter 143, General Statutes of North Carolina, Public Law 92-500 and other lawful standards and regulations, the North Carolina Environmental Management Commission proposes to issue a permit to discharge to the persons listed above effective January 2, 1986 and subject to special conditions.

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the above address no later than December 18, 1985. All comments received prior to that date will be considered in the formulation of final determinations regarding the proposed permit. A public hearing may be held where the Director of the Division of Environmental Management finds a significant degree of public interest in a proposed permit.

A copy of the draft permit is available by writing or calling the Division of Environmental Management, Archdale Building, Raleigh, NC 919/733-5083 or the Wilmington Regional Office, 7225 Wrightsville Avenue, Wilmington, NC, 919/256-4161.

The application and other information may be inspected at these locations during normal office hours. Copies of the information on file are available upon request and payment of the costs of reproduction. All such comments or requests regarding a proposed permit should make reference to the NPDES permit number listed above.

Date November 13, 1985

R. Paul Wilms, Director
Division of Environmental Management
November 18, 1985

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353-1175
Classified Advertising Department

Crossword

by THOMAS JOSEPH

ACROSS
1 Song refrain
5 Foot lever
10 Come about
12 Unforgotten
13 Nursery rhyme character
15 Faucet
16 With (Ger.)
17 Within (comb. form)
18 Tendon
20 "— Under the Elms"
23 Lead
27 Sports setting
28 That's it!
29 "Wozzeck" composer
30 Take a — at (look)
31 Expunge
33 Droop
36 Clumsy boat
37 Lamprey
40 The Amish or Mennonites
43 Friend (Sp.)
44 Handle
45 Mortise fitter
46 Hundred (Fr.)

DOWN
1 Endure
2 Opera highlight
3 Flaccid
4 Snake
5 Doughy mixture
6 Samuel's teacher
7 Coin
8 English river
9 Quadragesima
11 N.Y. city
14 "— Kleine Nachtmusik"
18 Burn
19 Complain
20 Food fish
21 Before
22 Indian weight
24 Finis
25 Mature
26 June beetle
28 Hamper
30 Robin Williams film role
32 Spoke at length
33 Tiff
34 Nautch girl
35 Capture
37 Fencing sword
38 Liveliness
39 Latvian
41 There — Again
42 Grampus

CHOKE GROSS
RAVEN RIVAL
EVENT ABELE
EEN WIT RED
DIRECT
MANANA HISS
IRENE CAMEL
TOAT SORELY
RESENT
RAM WET HEM
ARISE ELIDE
POSED SEDGE
TASTE TWEET

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COMPLETE PAINTING & HOUSE WASH

INTERIOR $75.00 AVG. ROOM

EXTERIOR $375.00 AVG. HOME

WASH $95.00 AVG. HOME

FINANCE -Low As- $50.00 PER MONTH

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DOS
Copy provided to AC/S FACILITIES
By Director NREAD

LAB
6280 --> 6282/1

From: Supervisory Chemsit, Water Quality Control Laboratory
Environmental Branch

To: Supervisory Ecologist, Environmental Branch

Subj: 28 Janaury 1986 Trip to Raleigh

1. On 28 Janaury 1986, I ACCOMPANIED Mr. Bob Alexander, Mr. Julian Wooten and a Captain from SJA to Raleigh to talk to the State on our new NPDES Permit. Mr. Dave Goodwin, LANTDIV, joined us in Raleigh. The following points were covered.

2. Computer River Model: The discussion started on the model. The State presented their model and they derived it and on what assumptions it was based. Most of their data was obtained from the USGS. However the tidal flow velocites were not known and were based on assumptions. Their model backed all their requirements of more stringent limits.

3. State's River Data: Mr. Alexander received copies of the State's data. Mr. Alexander is to receive more later.

4. Water Classifications: The New River is classified "SA" waters below the Hadnot point sewage outfall. This is why Onslow Beach, Courthouse Bay and the Rifle Range have the 28/14 fecal coliform limit. Since Hadnot Point discharges just above "SA", it also has the 28/14 fecal coliform limit. The State said 14 fecal coliform is equivalent to 70 total coliform. Therefore these are not more stringent. The State also pointed out a mistake on their part. Camp Geiger's new fecal coliform limit should have stayed at 400/200, instead of their proposed 2000/1000, since it discharges into "SB" waters. Tarawa Terrace and Camp Johnson discharge into "SC" waters and therefore have a limit of 2000/1000 fecal coliform.

5. Loading Limit: Dave Goodwin proposed that instead of the 22 mg/l concentration limit, that may behard to meet, that it be converted to a loading limit (using 22 mg/l and 8 MGD) with a maximum concentration limit of 30 mg/l. As long as the loading limit satisfies the Model, the State seemed agreeable.

6. Camp Geiger's BOD Limit: Dave Goodwin inquired into the effect of installing a diffuser on the Camp Geiger outfall on the BOD limits. The State said that if a diffuser was installed the BOD limits would be raised.

7. Monitoring: The State inquired as to whether the Base had started monitoring some of the new parameters. I replied that the laboratory was gearing up for the monitoring but actual sampling had not started. The State seemed displeased.

8. River Monitoring: The State seems agreeable to possibly reducing the required number of river runs if more parameters are monitored. To reconsider the frequency of the runs the State requested three things. They asked just what the laboratory was prepared to run; specifically what parameters in the new permit could the Base handle in house. I stated that we could run all but Total Nitrogen. The State also asked for a Map showing the locations of our present river points and a list of our present River parameters.

9. Outfalls in "SA" Waters: Dave Goodwin brought up the North Carolina regulation that prohibits outfalls in "SA" waters. The State said that they are not allowing any new outfalls in "SA" waters but present ones will not be required to be removed. Nor will present ones be allowed to be expanded. They stated that had the State had primacy when the expansion at Courthouse Bay had be proposed it would have been denied.

10. pH Limits: The State said that the limit of 6.8-8.5 was required by their model. They were not really interested in our river pH readings that did not show any affect. However, they stated that some of the industry permits had been granted expanded ranges. They said they would look at some of those permits and see what they had required of the permitee to get their expanded ranges.

11. Dissolved Oxygen Limits: What I have seen of plant data, showed only Camp Geiger as being the only plant with a problem in meeting the minimum 5.0 ppm limit. The State asked that we look at the dissolved oxygen data and see what kind of minimum we could meet and that they might be agreeable to lowering it for Camp Geiger.

12. Permit Issue Date: Julian Wooten asked about how much longer these negotiations could continue. The State implied that they would NOT be agreeable to waiting much longer before issuing our permits. They will issue them as is, if things are not settled soon.

13. After the meeting, I was taken upstairs and introduced to the people who review our data, per Julian Wooten's request. Several points that were discussed follow.

14. I stated that the operators take several pH readings a day and that since the state forms did not allow for more then one reading a day, we report the 0800 reading. They were agreeable.

15. I also stated that Chlorine Residuals were taken usually every two hours and that again the report only allowed one reading a day. I asked what they would like to see, they said they would like to see the highest reading for each day.

16. On storm drains they stated that they were not going to issue their permits until 1987. However, the Onslow Beach Water Plant would be receiving a permit.

17. On the Influent Data question, the state said that if do any monitoring on the influent we were to report it.

18. I was shown the State's computer that our data is put on. They only have November's and December's on it because they could't enter the information from EPA's DMRs. They stated that in the future, if we started using an computer or word processer we could use them to print the forms provided they were similar to the State's forms.

Elizabeth A Batty

LW. Copy to Danny + Betz
DDS

Betz - Please retain one copy of this. DStorm

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 26, 1986

MEMORANDUM

TO: Preston Howard

FROM: Carla Sanderson CS

THRU: Meg Kerr MK

SUBJECT: Camp Lejeune - Camp Geiger WWTP
New River
NPDES # NC0062995

At our January 28 meeting with Camp Lejeune, Bob Alexander expressed some concern over the limits calculated for Camp Geiger. I sent Mr. Alexander the parameters used in the Camp Geiger model. He questioned the 4 ft. depth used in the analysis and sent us blue prints of the facility and its point of discharge. It is clear from these drawings that in order to exceed the depth of 4 ft., a pipe must be built to extend the outfall into deeper water.

I ran the model four different ways, using different lengths of pipe and a diffuser.

	50' Pipe	100' Pipe	150' Pipe	50' Pipe w/Diffuser
Depth	5	12	15	5
Width	100	100	100	350*
UBOD	40	77	94	110
BOD_5	16	21	22	30
NH_3N	6	14	18	--
DO	5	5	5	5

* The actual width of the channel was used for the diffuser.

According to Bob Alexander, we will not know which option Camp Lejeune decides to take for several weeks. We will give the most lenient limits at present, since these can be tightened at notice, but not loosened.

Camp Geiger's Limits 10/85

	Summer	Winter
wasteflow (mgd)	1.6	1.6
BOD_5 (mg/l)	10	13
NH_3N (mg/l)	3	4
DO (mg/l)	5	5
pH (SU)	6.8 - 8.5	6.8 - 8.5
Fecal Coliform (/100 ml)	1000	1000
TSS (mg/l)	30	30

Newly Revised Limits 3/86

	50' Diffuser Pipe
wasteflow (mgd)	1.6
BOD_5 (mg/l)	30
NH_3N (mg/l)	--
DO (mg/l)	5
pH (SU)	6 - 8.5
Fecal Coliform (/100 ml)	200
TSS (mg/l)	30

Please let me know if you have any questions about this analysis.

CMS:mlt

cc: [redacted]

Request No. :

WASTELOAD ALLOCATION APPROVAL FORM

Facility Name	: CAMP LEJEUNE - CAMP GEIGER STP		
Type of Waste	: DOMESTIC		
Status	: EXISTING		
Receiving Stream	: NEW RIVER		
Stream Class	: SC		
Subbasin	: 030502	Drainage Area (sq mi)	:
County	: ONSLOW	7Q10 (cfs)	:
Regional Office	: WIRO	Winter 7Q10 (cfs)	:
Requestor	: DALE OVERCASH	30Q2 (cfs)	:
Date of Request	: 3/26/86	Average Flow (cfs)	:
Quad	: I29NW		

RECOMMENDED EFFLUENT LIMITS

Wasteflow (mgd)	1.6
5-Day BOD (mg/l)	30
Ammonia Nitrogen (mg/l)	
Dissolved Oxygen (mg/l)	5
TSS (mg/l)	30
Fecal Coliform (#/100ml)	200
pH (SU)	6-8.5

COMMENTS

OIL & GREASE = 30 mg/l
THESE LIMITS APPLY ONLY WITH INSTALLATION OF A 50 FOOT DIFFUSER PIPE.

Recommended by Carla Sanderson Date 3/26/86

Reviewed by:

Tech. Support Supervisor My Kerr Date 3/28/86

Regional Supervisor _____ Date _____

Permits & Engineering _____ Date _____

W. Copy to Danny + Bob

DIVISION OF ENVIRONMENTAL MANAGEMENT

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BOD_5 (mg/l)	30
NH_3N (mg/l)	--
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Fecal Coliform (/100 ml)	200
TSS (mg/l)	30

Please let me know if you have any questions about this analysis.

CMS:mlt

cc: [redacted]

Request No. :

WASTELOAD ALLOCATION APPROVAL FORM

Facility Name	: CAMP LEJEUNE - CAMP GEIGER STP		
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Stream Class	: SC		
Subbasin	: 030502		
County	: ONSLOW	Drainage Area (sq mi)	:
Regional Office	: WIRO	7Q10 (cfs)	:
Requestor	: DALE OVERCASH	Winter 7Q10 (cfs)	:
Date of Request	: 3/26/86	30Q2 (cfs)	:
Quad	: I29NW	Average Flow (cfs)	:

RECOMMENDED EFFLUENT LIMITS

Wasteflow (mgd)	1.6
5-Day BOD (mg/l)	30
Ammonia Nitrogen (mg/l)	
Dissolved Oxygen (mg/l)	5
TSS (mg/l)	30
Fecal Coliform (#/100ml)	200
pH (SU)	6-8.5

COMMENTS

OIL & GREASE = 30 mg/l
THESE LIMITS APPLY ONLY WITH INSTALLATION OF A 50 FOOT DIFFUSER PIPE.

Recommended by Carla Sanderson Date 3/26/86

Reviewed by:

Tech. Support Supervisor Mg Kes Date 3/28/86

Regional Supervisor _____ Date _____

Permits & Engineering _____ Date _____

File at Lab

T-6282

6280
FAC

17 JUN 1986

Environmental Engineer

Assistant Chief of Staff, Facilities, Marine Corps Base, Camp Lejeune

SEWAGE PERMIT RENEWAL BY STATE OF NORTH CAROLINA

Ref: (a) Phonecon btwn Mr. Howard, NC Div of EnvMgmt (NCDEM); Ms. Betz, NREAD; and Mr. Alexander, FAC of 22 May 86

Encl: (1) Summary of Sewage Monitoring Proposals

1. Summary:

a. NCDEM agreed to revised monitoring as proposed by NREAD and will issue 6 of 7 permits (all but Camp Geiger) in June.

b. The Camp Geiger permit will be held until final agreement on a joint detailed survey of New River between NCDEM and MCB is reached.

2. As indicated on enclosure, a revised proposal was discussed with Mr. Howard. The revisions primarily include:

a. Reduction of oil & grease sampling of sewage plants from daily to bi-monthly

b. Modification of river sampling to drop 4 of 9 stations. Decrease summertime river sampling frequency from three times per week to once per week.

c. Delete winter river sampling.

d. Collection by MCB of algae samples for analyses by NCDEM.

3. Camp Geiger effluent limits in the new permit appear to require construction of additional treatment equipment. At our request, NCDEM prepared a wasteload allocation which considered a 50' diffuser on the effluent pipe. The allocation favorably indicates the diffuser would meet water quality standards and appears to be more cost-effective than constructing in-plant process.

4. NCDEM will contact MCB in next few weeks to continue discussions of New River monitoring.

R. E. ALEXANDER

Copy to:
BMO
NREAD

17 JUN 1986

NPDES PROPOSAL

I. SEWAGE PLANTS

A. Large Ones (HP, TT, CG)

1. BOD, Suspended Solids, NH_3, pH, Cl_2, F. Coli, Temp, DO — Daily (5 days/week)

2. T. Nitrogen*, T. Phosphorus — Monthly

3. Oil & Grease - 2/month [collected by WQCL] OR (1/wk by STP)

B. Small Ones (CJ, RR, CHB, OB)

1. BOD, Sus Solids, NH_3, pH, Cl_2, F. Coli, Temp, DO — (2/month)

2. Oil & Grease - 2/month [collected by WCL]

3. T. Nitrogen*, T. Phosphorus — Quarterly but C.J. was monthly

NC will OK

II. RIVER RUN

A. Frequency

1. Winter (Oct-Mar): No runs
2. Summer (Apr-Sep): 1/week (From HP Plant & Upstream)

2/mo not unreasonable

B. Points (All Plants from Hadnot Point & Above)

1. One point on either side of outfall
2. Total of 8 points
3. Points to be (500) ft from outfall

C. Parameters

1. Temp
2. Dissolved Oxygen (w/BOD)
3. Fecal Coliform
4. pH

Suggestion

*Completely contracted out

WINTER LIMITS — CAMP GEIGER AMMONIA — SUMMER LIMITS

		mg/L				
MAR	3	12.7		APR	1	11.1
	4	12.7			2	10.2
	5	12.3	13.0		3	8.6
	6	13.5			4	11.9
	7	13.9				
					7	9.1
	10	10.0			8	10.6
	11	11.9			9	
	12	10.8	~~11.1~~ 11.1		10	
	13	11.8			11	
	14	11.6*				
					14	
	17	8.9			15	
	18	9.2*			16	
	19	6.3	7.2		17	
	20	5.9			18	
	21	7.8				
					21	
	24	9.4			22	
	25	10.9			23	
	26	10.9	10.2		24	
	27	9.9			25	
	28	10.1				
					28	
	31	7.5	7.5		29	
					30	

MONTHLY AVERAGE 10.4

* SAMPLE ERROR

Lab Data File

D. Oxygen

Leigh

D.O.

1985

													Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1	3											3	3.4	3.3	3.7	3.8	2.8	3.1	3.0	3.0	3.0	3.2	3.6	9.5
2	7											)	2.9	3.4	3.4	3.7	3.6	3.4	3.2	2.8	2.8	3.0	3.0	8.5
3	4											)	3.1	2.7	3.2	3.8	3.1	3.3	2.7	3.0	3.4	3.5	3.2	9.3
4	2.											)	3.5	2.8	3.2	3.2	4.0	3.2	2.7	3.1	3.0	3.8	3.6	9.0
5	3.											)	3.4	3.9	3.1	3.5	3.4	3.3	3.1	3.0	3.0	3.5	3.5	8.8
6	3.											4.0	3.6	3.2	3.2	3.0	3.0	3.4	3.0	2.8	3.5	3.6	3.0	9.0
7	3.7	3.2	3.1	3.0	3.3	2.6	3.2	3.6	4.0	4.8	2.5	3.8	3.5	3.8	3.0	3.4	3.4	3.5	2.7	2.5	2.8	3.5	3.2	4.4
8	11.0	3.3	3.0	2.6	2.8	2.4	3.5	4.0	3.4	6.5	2.5	3.2	3.2	3.5	3.2	3.5	3.2	3.2	2.7	3.5	3.5	3.3	3.8	4.0
9	3.7	3.6	3.3	4.1	2.6	3.6	3.0	3.6	3.0	4.2	4.2	3.3	3.0	3.6	3.4	3.4	3.2	3.1	1.9	3.8	3.1	3.2	3.6	4.2
10	2.6	3.4	3.4	4.0	2.8	4.0	3.1	3.0	2.3	2.8	3.6	3.1	3.3	3.2	3.3	4.5	3.4	3.2	3.2	2.8	2.5	4.3	3.7	4.2
11	3.9	3.5	3.4	3.3	1.9	2.3	3.5	5.5	1.8	3.1	3.5	3.9	2.9	3.2	3.2	3.7	3.0	3.3	3.0	3.0	3.0	2.8	3.8	3.3
12	3.5	3.6	3.0	3.0	2.6	2.8	3.6	4.5	7.6	2.7	3.6	2.5	3.3	3.4	3.4	3.2	3.3	2.7	3.2	3.2	2.5	3.0	2.0	3.6
13	3.7	3.5	3.5	3.6	2.0	2.5	3.6	3.5	6.6	2.8	3.5	2.9	3.0	3.2		3.0	3.2	3.0	3.5	3.0	2.7	3.0	3.1	3.6
14	3.6	7.9	5.9	3.2	2.3	3.2	3.5	3.4	5.6	3.1	3.1	3.1	3.2	3.0	3.6	3.2	3.5	2.7	3.6	3.5	2.7	3.0	3.5	3.0
15	3.5	7.0	5.7	3.0	2.9	3.4	3.2	3.5	7.3	3.0	3.2	3.2	3.0	3.0		3.3	3.5	3.0	3.0	2.8	2.4	2.5	3.4	3.2
16	2.8	5.9	3.0	3.3	2.2	3.5	3.6	2.5	6.3	2.5	3.3	3.0	2.8	2.7		3.4	3.5	3.1	2.5	2.8	3.0	3.5	3.6	3.2
17	2.8	5.3	3.2	3.1	2.8	3.6	3.5	3.8	3.6	3.0	3.0	3.0	3.6	2.3		3.3	3.0	3.2	4.2	3.0	2.8	3.0	3.2	3.8
18	3.5	5.4	3.0	3.2	2.9	2.8	3.4	4.2	7.0	3.2	3.0	2.8	3.2	3.0		4.6	3.6	3.4	3.0	3.5	3.1	3.4	3.4	2.3
19	3.7	4.8	4.5	3.2	2.9	3.2	3.6	3.8	4.2	3.2	3.0	3.5	3.0	3.2		4.0	3.2	2.6	2.8	3.5	3.2	3.3	3.4	3.6
20	3.2	3.4	3.0	4.1	2.6	3.4	3.7	3.6	3.7	3.3	3.2	3.2	3.6	3.0		3.0	3.5	3.2	3.0	2.5	3.2	3.1	3.0	3.9
21	3.4	4.2	4.3	3.6	3.0	2.6	3.6	3.5	1.0	2.8	3.8	3.2	3.3	3.2	4.0	4.0	4.2	2.8	2.9	2.9	3.1	3.6	3.0	3.0
22	3.2	3.2	2.3	3.3	3.4	3.0	3.5	4.2	3.2	3.5	3.2	3.6	4.2	5.8	3.5	3.8	3.3	3.0	3.2	3.0	3.3	3.2	3.0	2.6
23	2.9	4.2	3.1	3.4	2.8	3.2	2.6	2.8	3.8	3.0	3.0	3.9	4.5	3.9	3.3	3.6	3.2	2.6	3.2	3.0	3.4	3.4	3.0	5.0
24	5.7	4.0	3.0	3.1	3.3	3.5	2.8	4.8	4.0	3.0	3.2	3.3	4.0	4.0	5.3	3.8	3.5	3.5	3.1	3.2	3.2	3.9	3.0	4.0
25	4.0	3.8	3.2	2.4	3.6	2.6	3.5	3.8	4.5	3.4	2.9	3.4	3.0	3.0	3.7	3.2	3.0	2.6	3.5	3.0	2.8	3.6	3.2	4.0
26	3.7	3.5	2.8	3.6	3.0	2.2	3.3	2.8	4.2	3.6	3.6	3.8	2.5	3.0	4.5	2.8	3.5	2.9	3.0	2.7	2.5	2.8	5.0	4.5
27	3.4	3.5	3.0	3.0	3.0	3.0	3.2	3.0	3.8	3.3	3.4	3.8	3.8	4.7	4.3	3.0	3.1	2.5	3.2	3.0	2.9	2.6	3.0	4.3
28	3.5	3.7	3.2	2.4	3.6	2.6	3.4	3.2	3.0	3.2	3.0	3.6	4.0	4.6	3.0	3.3	3.0	3.0	2.8	3.0	2.8	2.4	3.6	4.0
29	3.2	4.5	4.8	3.0	3.5	3.5	3.6	2.1	3.3	3.0	5.5	3.8	3.6		2.9	2.9	3.0	2.5	3.3	3.3	3.0	3.5	3.6	4.1
30	3.7		3.9	3.3	2.7	2.7	2.8	1.6	3.7	4.0	2.8	3.8	3.3		3.4	2.5	3.3	3.0	3.0	2.6	2.5	3.5	3.5	4.3
31	3.4		4.1		5.0		3.2	2.5		4.6		3.8	2.3		3.7		3.0		2.9	2.4		6.3		5.0
Ave	3.6	4.1	3.6	3.1													3.3	3.0	3.0	3.0	2.9	3.3	3.4	4.8

Camp Lejeune
D.O.

1984

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	3.2	3.7	4.6	3.6	3.1	2.8	3.2	3.6	3.3	3.6	3.6	3.3
2	7.2	3.5	4.0	3.3	3.2	3.0	2.6	3.6	3.4	3.6	4.5	3.0
3	4.7	3.4	3.8	3.5	4.0	3.1	2.8	3.5	3.0	4.8	4.2	3.2
4	2.5	3.6	3.6	3.5	2.9	2.4	3.4	3.5	2.2	4.0	4.0	3.4
5	3.6	3.4	3.7	4.3	3.4	2.0	3.2	3.4	2.6	4.5	4.2	2.8
6	3.3	3.6	4.8	2.3	3.1	2.7	3.6	3.3	3.2	4.0	3.5	4.0
7	3.7	3.2	3.1	3.0	3.3	2.6	3.2	3.6	4.0	4.8	2.5	3.8
8	11.0	3.3	3.0	2.6	2.8	2.4	3.5	4.0	3.4	6.5	2.5	3.2
9	3.7	3.6	3.3	4.1	2.6	3.6	3.0	3.6	3.0	4.2	4.2	3.3
10	2.6	3.4	3.4	4.0	2.8	4.0	3.1	3.0	2.3	2.8	3.6	3.1
11	3.9	3.5	3.4	3.3	1.9	2.3	3.5	5.5	1.8	3.1	3.5	3.9
12	3.5	3.6	3.0	3.0	2.6	2.8	3.6	4.5	7.6	2.7	3.6	2.5
13	3.7	3.5	3.5	3.6	2.0	2.5	3.6	3.5	6.6	2.8	3.5	2.9
14	3.6	7.9	5.9	3.2	2.3	3.2	3.5	3.4	5.6	3.1	3.1	3.1
15	3.5	7.0	5.7	3.0	2.9	3.4	3.2	3.5	7.3	3.0	3.2	3.2
16	2.8	5.9	3.0	3.3	2.2	3.5	3.6	2.5	6.3	2.5	3.3	3.0
17	2.8	5.3	3.2	3.1	2.8	3.6	3.5	3.8	3.6	3.0	3.0	3.0
18	3.5	5.4	3.0	3.2	2.9	2.8	3.4	4.2	7.0	3.2	3.0	2.8
19	3.7	4.8	4.5	3.2	2.9	3.2	3.6	3.8	4.2	3.2	3.0	3.5
20	3.2	3.4	3.0	4.1	2.6	3.4	3.7	3.6	3.7	3.3	3.2	3.2
21	3.4	4.2	4.3	3.6	3.0	2.6	3.6	3.5	1.0	2.8	3.8	3.2
22	3.2	3.2	2.3	3.3	3.4	3.0	3.5	4.2	3.2	3.5	3.2	3.6
23	2.9	4.2	3.1	3.4	2.8	3.2	2.6	2.8	3.8	3.0	3.0	3.9
24	5.7	4.0	3.0	3.1	3.3	3.5	2.8	4.8	4.0	3.0	3.2	3.3
25	4.0	3.8	3.2	2.4	3.6	2.6	3.5	3.8	4.5	3.4	2.9	3.4
26	3.7	3.5	2.8	3.6	3.0	2.2	3.3	2.8	4.2	3.6	3.6	3.8
27	3.4	3.5	3.0	3.0	3.0	3.0	3.2	3.0	3.8	3.3	3.4	3.8
28	3.5	3.7	3.2	2.4	3.6	2.6	3.4	3.2	3.0	3.2	3.0	3.6
29	3.2	4.5	4.8	3.0	3.5	3.5	3.6	2.1	3.3	3.0	5.5	3.8
30	3.7		3.9	3.3	2.7	2.7	2.8	1.6	3.7	4.0	2.8	3.8
31	3.4		4.1		5.0		3.2	2.5		4.6		3.8
Ave	3.6	4.1	3.6	3.1								

1985

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	3.4	3.3	3.7	3.8	2.8	3.1	3.0	3.0	3.0	3.2	3.6	9.5
2	2.9	3.4	3.4	3.7	3.6	3.4	3.2	2.8	2.8	3.0	3.0	8.5
3	3.1	2.7	3.2	3.8	3.1	3.3	2.7	3.0	3.4	3.5	3.2	9.3
4	3.5	2.8	3.2	3.2	4.0	3.2	2.7	3.1	3.0	3.8	3.6	9.0
5	3.4	3.9	3.1	3.5	3.4	3.3	3.1	3.0	3.0	3.5	3.5	8.8
6	3.6	3.2	3.2	3.0	3.0	3.4	3.0	2.8	3.5	3.6	3.0	9.0
7	3.5	3.8	3.0	3.4	3.4	3.5	2.7	2.5	2.8	3.5	3.2	4.4
8	3.2	3.5	3.2	3.5	3.2	3.2	2.7	3.5	3.6	3.3	3.8	4.0
9	3.0	3.6	3.4	3.4	3.2	3.1	1.9	3.8	3.1	3.2	3.6	4.2
10	3.3	3.2	3.3	4.5	3.4	3.2	3.2	2.8	2.5	4.3	3.7	4.2
11	2.9	3.2	3.2	3.7	3.0	3.3	3.0	3.0	3.0	2.8	3.8	3.3
12	3.3	3.4	3.4	3.2	3.3	2.7	3.2	3.2	2.5	3.0	2.0	3.6
13	3.0	3.2		3.0	3.2	3.0	3.5	3.0	2.7	3.0	3.1	3.6
14	3.2	3.0	3.6	3.2	3.5	2.7	3.6	3.5	2.7	3.0	3.5	3.0
15	3.0	3.0		3.3	2.5	3.0	3.0	2.8	2.4	2.5	3.4	3.2
16	2.8	2.7		3.4	3.5	3.1	2.5	2.8	3.0	3.5	3.6	3.2
17	3.6	2.3		3.3	3.0	3.2	4.2	3.0	2.8	3.0	3.2	3.8
18	3.2	3.0		4.6	3.6	3.4	3.0	3.5	3.1	3.4	3.4	2.3
19	3.0	3.2		4.0	3.2	2.6	2.8	3.5	3.2	3.3	3.4	3.6
20	3.6	3.0		3.0	3.5	3.2	3.0	2.5	3.2	3.1	3.0	3.9
21	3.3	3.2	4.0	4.0	4.2	2.8	2.9	2.9	3.1	3.6	3.0	3.0
22	4.2	5.8	3.5	3.8	3.3	3.0	3.2	3.0	3.3	3.2	3.0	2.6
23	4.5	3.9	3.3	3.6	3.2	2.6	3.2	3.0	3.4	3.4	3.0	5.0
24	4.0	4.0	5.3	3.8	3.5	3.5	3.1	3.2	3.2	3.9	3.0	4.0
25	3.0	3.0	3.7	3.2	3.0	2.6	3.5	3.0	2.8	3.6	3.2	4.0
26	2.5	3.0	4.5	2.8	3.5	2.9	3.0	2.7	2.5	2.8	5.0	4.5
27	3.8	4.7	4.3	3.0	3.1	2.5	3.2	3.0	2.9	2.6	3.0	4.3
28	4.0	4.6	3.0	3.3	3.0	3.0	2.8	3.0	2.8	2.4	3.6	4.0
29	3.6		2.9	2.9	3.0	2.8	3.3	3.3	3.0	3.5	3.6	4.1
30	3.3		3.4	2.5	3.3	3.0	3.0	2.6	2.5	3.5	3.5	4.3
31	2.3		3.7		3.0		2.9	2.4		6.3		5.0
Ave					3.3	3.0	3.0	3.0	2.9	3.3	3.4	4.8

1985

D.O.

Monthly averages

	HP	TT	MP	OB	RR	CHB
Jan	6.9	8.3	9.3	9.1	8.0	8.0
Feb	7.3	9.6	9.1	8.4	8.4	8.0
March	6.7	9.5	8.5	8.3	8.1	8.0
Apr.	6.7	9.6	8.0	8.0	7.9	7.6
May	5.9	8.4	7.7	7.4	7.7	7.3
June	6.4	8.4	7.7	6.9	7.0	7.6
July	5.7	8.2	7.6	7.1	6.9	7.3
Aug	5.9	8.3	7.7	6.7	7.2	7.3
Sept	5.5	8.1	7.8	6.5	7.4	7.6
Oct	6.2	8.2	8.2	6.4	7.9	7.3
Nov	6.3	8.2	8.4	7.1	8.3	7.4
DEC	6.9	8.6	8.8	7.8	10.4	9.0

JLW — River

pH

MONTH / YEAR	NEW RIVER SAMPLING POINTS								
	RW01	RW02	RW03	RW04	RW05	RW06	RW07	RW08	RW09
JAN'84	7.2	7.1	8.5	9.1	9.0	8.6	8.3	8.2	8.3
FEB	7.1	9.0	9.1	9.1	9.0	8.4	8.3	8.2	8.2
MAR	6.8	6.6	7.1	8.6	8.4	8.1	8.2	8.1	8.1
APR*1	7.0	7.4	7.5	7.7	7.9	7.9	8.1	8.0	8.1
MAY	8.2	7.9	7.6	8.1	7.9	8.1	8.1	8.2	7.9
JUN	8.2	7.7	8.2	8.4	8.4	8.3	8.3	8.3	8.3
JUL	7.3	7.1	7.6	8.2	8.2	8.1	8.2	8.1	8.1
AUG	6.8	7.3	7.8	8.2	8.3	8.3	8.2	8.2	8.2
SEP	6.6	6.8	6.9	7.3	7.6	7.8	8.0	8.1	8.1
OCT	7.3	7.8	8.0	8.1	8.0	8.1	8.2	8.2	8.1
NOV	7.3	7.7	7.5	8.0	8.0	8.1	8.2	8.2	8.2
DEC	7.1	7.0	7.6	8.1	8.2	8.1	8.1	8.1	8.1
JAN'85	7.4	7.6	7.8	7.8	7.9	8.1	8.1	8.1	8.1
FEB	7.1	7.3	8.6	8.9	8.9	8.6	8.1	8.1	8.2
MAR	7.6	8.0	8.0	8.0	8.1	8.2	8.2	8.2	8.2
APR	7.3	7.9	7.3	8.0	8.0	8.1	8.2	8.1	8.1
MAY	7.7	7.7	8.1	8.3	8.2	8.2	8.1	8.0	8.1
JUN	8.2	8.5	8.5	8.6	8.5	8.2	8.1	8.1	8.1
JUL	8.0	8.0	8.1	8.2	8.2	8.1	8.1	8.0	8.0
AUG	7.5	7.7	8.1	8.4	8.4	8.1	8.1	8.0	8.0
SEP	8.2	7.8	8.2	8.3	8.3	8.1	8.1	8.1	8.0
OCT	7.1	6.9	8.1	8.2	8.1	8.1	8.1	8.0	8.1
NOV	6.9	6.8	7.1	8.1	8.1	7.9	8.0	8.0	7.9
DEC	7.1	6.9	7.6	7.8	8.1	8.1	8.1	8.1	8.1

*1 DATA COLLECTED 10 MAY 1984.

DISSOLVED OXYGEN / B.O.D. (mg/l.)

MONTH	NEW RIVER SAMPLING POINTS																	
YEAR	RW01		RW02		RW03		RW04		RW05		RW06		RW07		RW08		RW09	
JAN'84	9.2	0.7	16.0	7.7	16.1	4.7	17.7	9.5	16.5	6.1	12.3	2.3	10.1	0.3	9.7	0.3	10.0	0.2
FEB	10.8	1.9	13.2	8.0	12.4	5.6	13.0	5.8	12.5	4.7	9.4	2.1	8.2	0.2	9.4	1.0	9.0	0.9
MAR	7.8	1.3	7.8	1.3	8.2	3.0	12.1	7.7	11.0	5.1	9.6	2.6	7.9	0	9.1	1.1	9.1	1.4
APR*1	5.6	1.6	7.3	1.7	7.3	2.2	7.1	2.1	7.8	2.8	6.6	1.3	7.2	1.5	6.7	1.5	6.8	1.3
MAY	9.0	3.6	7.2	4.0	6.3	2.8	7.5	2.0	6.5	1.7	7.2	4.3	6.9	0.9	6.6	0.6	6.8	0.7
JUN	7.9	0.7	5.3	1.7	6.4	3.2	6.1	3.4	6.7	3.6	6.0	2.9	6.9	4.7	6.8	5.2	6.2	4.1
JUL	3.7	2.3	3.9	3.1	5.6	3.9	6.7	4.0	6.5	2.7	5.2	2.4	5.7	1.2	5.3	1.2	5.0	1.6
AUG	3.1	1.0	5.4	3.7	5.5	2.7	6.7	3.3	6.9	2.6	7.0	3.6	6.5	0.7	6.4	2.1	6.1	2.4
SEP	3.7	0.5	4.5	0.6	5.1	0.6	6.1	0.9	6.8	1.5	7.0	1.0	7.2	1.0	7.0	1.2	7.0	1.0
OCT	5.9	5.7	8.2	8.0	8.3	3.5	8.8	3.6	8.7	1.6	7.7	0.5	7.1	0.3	7.1	0.3	7.1	0.2
NOV	7.8	2.5	6.6	1.4	9.4	3.4	9.7	2.4	9.9	2.7	9.1	1.7	8.0	1.0	8.5	1.1	8.5	1.0
DEC	8.0	1.8	9.6	6.2	11.4	4.2	11.1	3.9	10.9	2.5	9.7	1.4	8.5	0.6	8.4	0.6	9.2	1.1
JAN'85	10.9	1.6	11.0	1.0	11.9	1.3	11.9	1.7	12.8	2.1	12.9	2.3	12.0	1.4	12.0	1.2	12.0	1.0
FEB	9.0	1.5	12.8	4.3	13.0	2.8	13.1	3.2	12.5	3.1	10.9	1.4	9.0	0.3	9.4	0.2	9.5	0.2
MAR	10.5	3.4	10.2	4.1	9.4	3.3	9.4	2.4	9.5	2.1	9.5	1.7	8.8	1.2	8.1	0.4	8.7	1.3
APR	8.0	2.8	8.3	4.0	8.4	3.3	8.2	2.3	8.5	2.1	8.0	0.7	7.9	0.9	7.3	0.9	7.6	0.5
MAY	6.5	6.3	6.8	3.1	7.7	3.6	7.5	2.8	7.6	3.1	7.1	1.4	7.0	1.0	6.8	0.7	6.8	1.3
JUN	7.0	6.8	7.8	2.8	7.7	2.0	7.7	3.2	7.9	2.4	6.5	0.9	6.4	0.3	6.7	0.6	6.3	0.2
JUL	5.9	5.8	7.0	4.7	6.1	4.2	6.4	3.8	6.3	3.5	6.1	2.5	6.0	1.0	5.8	1.6	5.7	1.7
AUG	5.9	5.5	3.1	3.1	5.3	5.0	7.6	4.8	7.5	4.4	6.7	2.3	6.3	0.6	6.3	0.8	6.2	1.2
SEP	5.8	5.8	5.4	4.2	6.5	5.7	5.8	3.5	6.7	3.6	5.4	3.8	5.7	2.5	5.6	2.0	4.8	1.9
OCT	4.1	1.4	3.3	0.1	7.0	3.9	7.2	3.5	7.0	3.3	7.0	2.5	6.6	1.9	6.6	1.4	6.7	1.2
NOV	4.0	2.8	5.5	2.5	6.1	5.9	9.8	6.7	9.4	6.3	7.2	2.9	7.0	0.4	7.3	0.5	7.1	1.3
DEC	8.1	1.2	9.2	3.2	10.3	3.2	10.6	3.0	11.4	4.0	10.8	1.5	8.9	0.5	8.0	1.0	8.0	0.2

*1 DATA COLLECTED 10 MAY 1984.

COLIFORM: TOTAL / FECAL PER 100 ml.

MONTH YEAR	NEW RIVER SAMPLING POINTS																	
	RW01		RW02		RW03		RW04		RW05		RW06		RW07		RW08		RW09	
JAN'84	300	400	430	472	50	136	10	4	0	2	0	2	0	0	2	2	0	0
FEB	90	52	40	28	4	2	0	0	0	2	0	0	0	0	10	4	4	0
MAR	3900	1500	1800	1000	4200	1300	360	136	64	44	12	4	0	0	8	0	0	0
APR *1	2000	240	280	16	1400	40	12	0	16	0	4	0	0	0	0	8	0	4
MAY *2	—	80	-	4	—	4	-	0	-	0	-	0	-	0	-	0	-	0
JUN	0	60	100	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUL	13000	3700	18000	4600	2200	700	0	0	116	0	200	32	20	4	400	44	200	48
AUG	1200	70	400	10	100	60	600	52	100	8	200	4	0	0	300	12	0	4
SEP	1200	160	2800	150	15000	400	1800	200	0	28	400	0	100	0	0	4	400	12
OCT	5000	130	400	60	30	8	60	4	10	4	50	0	0	0	10	8	10	16
NOV	1200	90	100	70	700	120	50	0	70	20	0	0	0	0	0	0	0	0
DEC	11000	120	7000	490	9600	100	12	0	4	0	24	0	0	0	0	0	4	0
JAN'85	300	40	170	32	0	0	0	0	0	0	0	0	0	4	0	0	0	0
FEB	500	160	600	200	20	4	0	0	0	0	0	0	0	0	0	0	0	0
MAR	840	80	140	28	48	4	4	0	4	0	0	0	0	0	0	0	0	0
APR	112	32	200	72	400	24	8	10	0	4	4	2	0	0	0	0	0	0
MAY	300	20	700	48	120	16	8	0	2	36	0	2	0	2	0	0	40	54
JUN	400	12	210	8	2100	48	4	0	0	0	0	0	100	32	0	0	8	6
JUL	600	52	500	100	30	4	0	0	4	0	0	0	0	0	0	0	0	0
AUG	360	84	220	56	150	32	4	0	4	0	4	0	0	0	16	4	4	0
SEP	500	100	200	88	200	0	0	0	0	0	10	0	0	0	0	0	0	0
OCT	2000	200	6000	200	120	28	100	16	40	8	0	4	16	0	100	16	32	0
NOV	400	30	800	130	170	52	100	16	20	0	8	8	0	8	100	16	0	0
DEC	500	150	700	270	160	20	52	4	28	4	20	4	16	0	20	4	8	4

*2 LAB ERROR ON TOTAL COLIFORM CULTURE - NO RESULTS.

*1 DATA COLLECTED ON 10 MAY 1984

TEMPERATURE °C

MONTH YEAR	NEW RIVER SAMPLING POINTS								
	RW01	RW02	RW03	RW04	RW05	RW06	RW07	RW08	RW09
JAN'84	8.0	8.0	8.0	8.0	8.0	7.0	8.0	8.0	9.0
FEB	14.0	14.0	14.0	11.0	12.0	12.0	12.0	11.0	12.0
MAR	11.0	12.0	13.0	13.0	12.0	13.0	13.0	13.0	13.0
APR *1	22.0	22.0	23.0	22.0	22.0	22.0	21.0	22.0	21.0
MAY	24.0	24.0	25.0	24.0	24.0	23.5	23.0	23.0	23.0
JUN	28.0	28.0	28.5	28.5	29.0	29.5	29.0	NO SAMPLE	28.5
JUL	28.0	28.0	28.0	28.0	29.0	29.0	28.0	28.5	29.0
AUG	28.0	31.0	30.5	30.5	30.5	30.5	29.0	30.5	30.0
SEP	21.0	20.0	20.0	22.0	21.0	21.0	20.0	20.0	21.0
OCT	19.0	19.0	19.5	19.0	19.0	19.5	20.5	20.0	20.5
NOV	11.0	12.0	12.0	12.5	11.5	12.5	15.5	14.0	13.0
DEC	8.0	9.0	9.0	8.5	8.5	9.0	11.0	11.0	10.5
JAN'85	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	5.0
FEB	7.0	9.0	8.0	8.0	8.0	8.0	8.0	8.0	7.5
MAR	12.0	12.0	13.0	11.0	11.0	12.0	11.0	10.0	11.0
APR	17.0	18.0	18.0	18.0	18.0	18.0	17.0	17.0	16.0
MAY	25.0	25.0	25.0	25.0	25.0	25.0	23.0	23.0	24.0
JUN	29.0	30.0	29.0	29.0	29.0	28.0	28.0	29.0	28.0
JUL	29.5	29.0	29.0	29.0	29.0	29.0	28.0	28.0	29.0
AUG	25.0	28.0	26.0	26.0	27.0	25.0	26.5	25.0	27.0
SEP	32.0	30.0	32.0	32.0	32.0	31.0	32.0	30.0	30.0
OCT	21.0	22.0	21.0	21.0	21.0	20.0	20.0	20.0	20.0
NOV	19.5	20.0	20.0	20.0	20.0	21.0	21.0	22.0	21.0
DEC	9.0	11.0	10.0	11.0	10.0	11.0	14.0	15.0	13.0

*1 DATA COLLECTED 10 MAY 1984.

NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS
Marine Corps Base
Camp Lejeune, North Carolina 28542

31 Jan 86
Date

From: Director
To: AC/S For
Subj: NPDES Meeting in Raleigh. 1-28-85

Col Tiebout

Ms Betz has documented the main points discussed with the State people in Raleigh Tuesday. and I am providing for your info.

V/R

Thanks
RATH

LAB
6280

From: Supervisory Chemsit, Water Quality Control Laboratory
Environmental Branch

To: Supervisory Ecologist, Environmental Branch

Subj: 28 Janaury 1986 Trip to Raleigh

1. On 28 Janaury 1986, I ACCOMPANIED Mr. Bob Alexander, Mr. Julian Wooten and a Captain Dowell from SJA to Raleigh to talk to the State on our new NPDES Permit. Mr. Dave Goodwin, LANTDIV, joined us in Raleigh. The following points were covered.

2. Computer River Model: The discussion started on the model. The State presented their model and they derived it and on what assumptions it was based. Most of their data was obtained from the USGS. However the tidal flow velocites were not known and were based on assumptions. Their model backed all their requirements of more stringent limits.

3. State's River Data: Mr. Alexander received copies of the State's data. Mr. Alexander is to receive more later.

4. Water Classifications: The New River is classified "SA" waters below the Hadnot point sewage outfall. This is why Onslow Beach, Courthouse Bay and the Rifle Range have the 28/14 fecal coliform limit. Since Hadnot Point discharges just above "SA", it also has the 28/14 fecal coliform limit. The State said 14 fecal coliform is equivalent to 70 total coliform. Therefore these are not more stringent. The State also pointed out a mistake on their part. Camp Geiger's new fecal coliform limit should have stayed at 400/200, instead of their proposed 2000/1000, since it discharges into "SB" waters. Tarawa Terrace and Camp Johnson discharge into "SC" waters and therefore have a limit of 2000/1000 fecal coliform.

5. Loading Limit: Dave Goodwin proposed that instead of the 22 mg/l concentration limit, that may be hard to meet, that it be converted to a loading limit (using 22 mg/l and 8 MGD) with a maximum concentration limit of 30 mg/l. As long as the loading limit satisfies the Model, the State seemed agreeable.

6. Camp Geiger's BOD Limit: Dave Goodwin inquired into the effect of installing a diffuser on the Camp Geiger outfall on the BOD limits. The State said that if a diffuser was installed the BOD limits would be raised.

7. Monitoring: The State inquired as to whether the Base had started monitoring some of the new parameters. I replied that the laboratory was gearing up for the monitoring but actual sampling had not started. The State seemed displeased.

8. River Monitoring: The State seems agreeable to possibly reducing the required number of river runs if more parameters are monitored. To reconsider the frequency of the runs the State requested three things. They asked just what the laboratory was prepared to run; specifically what parameters in the new permit could the Base handle in house. I stated that we could run all but Total Nitrogen. The State also asked for a Map showing the locations of our present river points and a list of our present River parameters.

9. Outfalls in "SA" Waters: Dave Goodwin brought up the North Carolina regulation that prohibits outfalls in "SA" waters. The State said that they are not allowing any new outfalls in "SA" waters but present ones will not be required to be removed. Nor will present ones be allowed to be expanded. They stated that had the State had primacy when the expansion at Courthouse Bay had been proposed it would have been denied.

10. pH Limits: The State said that the limit of 6.8-8.5 was required by their model. They were not really interested in our river pH readings that did not show any affect. However, they stated that some of the industry permits had been granted expanded ranges. They said they would look at some of those permits and see what they had required of the permitee to get their expanded ranges.

11. Dissolved Oxygen Limits: What I have seen of plant data, showed only Camp Geiger as being the only plant with a problem in meeting the minimum 5.0 ppm limit. The State asked that we look at the dissolved oxygen data and see what kind of minimum we could meet and that they might be agreeable to lowering it for Camp Geiger.

12. Permit Issue Date: Julian Wooten asked about how much longer these negotiations could continue. The State implied that they would NOT be agreeable to waiting much longer before issuing our permits. They will issue them as is, if things are not settled soon.

13. After the meeting, I was taken upstairs and introduced to the people who review our data, per Julian Wooten's request. Several points that were discussed follow.

14. I stated that the operators take several pH readings a day and that since the state forms did not allow for more then one reading a day, we report the 0800 reading. They were agreeable.

15. I also stated that Chlorine Residuals were taken usually every two hours and that again the report only allowed one reading a day. I asked what they would like to see, they said they would like to see the highest reading for each day.

16. On storm drains they stated that they were not going to issue their permits until 1987. However, the Onslow Beach Water Plant would be receiving a permit.

17. On the Influent Data question, the state said that if do any monitoring on the influent we were to report it.

18. I was shown the State's computer that our data is put on. They only have November's and December's on it because they could't enter the information from EPA's DMRs. They stated that in the future, if we started using an computer or word processer we could use them to print the forms provided they were similar to the State's forms.

Elizabeth A Batty

Sent to AC/S Fac 31 Jan 86

LAB
6280

From: Supervisory Chemsit, Water Quality Control Laboratory
Environmental Branch

To: Supervisory Ecologist, Environmental Branch

Subj: 28 Janaury 1986 Trip to Raleigh

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Elizabeth A Batt

OPNAV 5216/144A (Rev. 8-81)
S/N 0107-LF-052-2320

DEPARTMENT OF THE NAVY

Memorandum

T-6286/2

DATE: 25 October 1985

FROM: Supervisory Chemist, Water Quality Control Laboratory, Environmental Branch

TO: Supervisory Ecologist, Environmental Branch DDS

SUBJ: PROPOSED NPDES LIMITS

1. On 23 October 1985, you relayed some proposed NPDES limits you had received from Mr. R. Alexander. They are listed below:

PLANT	BOD EFFLUENT (mg/l)	NH_3 EFFLUENT
Hadnot Point	22	13
Camp Johnson	30	NONE
Camp Geiger	10	3

Camp Johnson's proposed limits agree with present ones.

2. Reviewing the data maintained at the laboratory, if the 10 mg/l limit for effluent BOD had been set in our last permit (effective March 1980), Camp Geiger would have violated it 16 times. January and February 1985's BOD effluent averages for Camp Geiger were 12.0 mg/l and 19.0 mg/l respectively. The proposed limit of 22 mg/l for effluent BOD for Hadnot Point should not be a problem. Since March 1980, Hadnot Point has reached it only once, February 1985 = 22 mg/l, and came close to it three times; November 1982 = 21 mg/l, January 1983 = 21 mg/l, and February 1984 = 22 mg/l. As stated above, the proposed 30 mg/l for Camp Johnson is its present limits and Camp Johnson has had no BOD effluent violations since at least July 1977.

3. The only ammonia data available is from CENTEC from one sample collected in August 1984. The results are shown below:

PLANT	NH_3 (mg/l)
Camp Geiger	0.03
Tarawa Terrace	6.50
Camp Johnson	2.20
Hadnot Point	0.50
Rifle Range	3.50
Courthouse Bay	0.05
Onslow Beach	0.02

According to the above data Hadnot Point and Camp Geiger should not have any problem. We are presently working on setting up an ammonia test for the laboratory. Really, before any planning and ordering of equipment should be done, I need to know the frequency of analysis that will be required.

Elizabeth A. Betz

ELIZABETH A. BETZ

☆U.S. GOVERNMENT PRINTING OFFICE: 1985 — 505-012/18049

(804) 444-1179

6280
1142DPG

24 DEC 1985

From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commanding General, Marine Corps Base, Camp Lejeune

Subj: DRAFT WASTEWATER PERMITS

Ref: (a) MARCORB Camp Lejeune ltr 6280/4 PAC of 11 Dec 85 (Rec'd 13 Dec 85)
(b) North Carolina Draft Permits Public Notice of 13 Nov 85
(c) PHONCON MARCORB Camp Lejeune (Bob Alexander)/LANTNAVFACENGCOM Code 1142 (Dave Goodwin) of 16 Dec 85
(d) PHONCON North Carolina (Ms. Kay McNeil, 919-733-5083)/ LANTNAVFACENGCOM Code 1142 (Dave Goodwin) of 16 Dec 85

Encl: (1) Estimated Monitoring Costs

1. Reference (a) forwarded reference (b) to review for problems.

2. As discussed via reference (c), reference (d) confirmed that as stated in reference (b), the commenting period is only until 18 December 85. In accordance with reference (c), MCB Camp Lejeune agreed to immediately request a 45 day extension for the comments provided below to be reviewed by North Carolina and then discussed in a meeting during the week of 20 January 1986. Without an extension the permit belongs final on 2 January 1986 and would require an immediate request for an adjudication hearing.

3. As discussed by reference (c), there are major problems with reference (b):

a. Advanced Wastewater Treatment Plant BOD/NH_3 limits for Camp Geiger and Hadnot Point probably cannot be met with existing equipment (eg. permit application indicates Camp Geiger cannot meet proposed BOD limit). Cost of upgrades could be in the millions of dollars. The draft permits do not provide compliance schedules; eg., enforcement action for non-compliance could begin almost immediately whereas FY-89/90 MCON Projects could not be operational until FY-91/92. Even if North Carolina expects the permit limits to be meet with existing equipment, accepting such limits could limit growth in the Hadnot Point and Camp Geiger areas. If North Carolina insists on the limits, they should provide for our review a Waste Load Allocation Report justifying such limits. North Carolina should be reminded that the over 10 years of receiving water data, submitted with the DMRs, does not indicate a water quality problem. F. Coli. limits should be retained at 200 average, 400 maximum and not raised to 1000 average, 2000 maximum on three plants and lowered to 14 average, 28 maximum on four plants, which will require toxic amounts of chlorine to comply.

S.T. DEC 1982

(b) As noted via enclosure (1), the draft permit estimated monitoring costs, if accepted as is, would be approximately $1 million over the anticipated 5 year life of the permit; i.e., about 444% of the present permit estimated monitoring costs. LANTNAVFACENGCOM Code 1142 recommends the following counter-proposal be made which would still cost about $90K per year (about 200% of the present cost):

(1) Retain twice per week BOD/TSS/F. Coli. monitoring at Camp Geiger and Tarawa Terrace and three times per week F. Coli. monitoring at Hadnot Point; especially since as documented in the DMRs the plants have produced a better than secondary effluent for over 10 years.

(2) Retain existing 9 monitoring stations, (14 proposed by reference (b)), monitor weekly during June through September and monthly during October through May and monitor plant NH_3 at these times (only).

(3) Oil should be monitored at same frequency as proposed above for F. Coli..

Note: North Carolina should also be requested to provide documentation that all the monitoring requirements are consistent with that imposed other facilities.

4. As also discussed via reference (c), other items in need of modification/clarification include:

a. North Carolina should provide the Permit Fact Sheet and the rest of Permit for our review.

b. Unclear whether North Carolina is requiring diffusor for Hadnot Point and Camp Johnson.

c. Unclear as to why North Carolina granting contract and outfall approvals for Hadnot Point and Camp Geiger but not construction approval for Courthouse Bay where the only significant construction is taking place.

d. Permit apparently requires effluent aeration which would require O&M projects but no compliance schedule provided and over 10 years of receiving water monitoring does not indicate a water quality problem.

e. Similiarly, compliance with pH limits of 6.8 to 8.5 is not possible based on the DMR data but no compliance schedule provided, no justification provided (requiring sewage plant pH control equipment is very unusual), and over 10 years of receiving water monitoring does not indicate a water quality problem.

f. Although not as major of a cost, it appears unnecessary to collect, report and have North Carolina review over the next five years, 4940 effluent temperatures values, 4940 effluent D.O. values and 4380 effluent pH values, especially since the plant operators cannot control these parameters. Suggest it is much more meaningful to have these parameters monitored (only) at the same time as the receiving water samples proposed above.

Subj: DRAFT WASTEWATER PERMITS

g. Should confirm "daily" means weekdays (only).

h. Should confirm five yesr permit.

i. Should confirm stream footnote inadvertantly deleted for Onslow Beach, Rifle Range, Courthouse Bay and Camp Johnson.

j. Request status on water plant permit (outfall 008 of application) and Building 1460 and fly ash run off.

1450

k. Suggest for administrative reasons one permit not seven (or eight) would be easier; i.e. outfalls 001 through 007 (or 008).

l. Hadnot Point Oil sample type should read grab not composite.

5. We should, of course, stress to North Carolina that our policy is to continue to provide Pollution Abatement and compliance and retain a nonadversary working relationship.

6. LANTNAVFACENGCOM Code 1142 (Dave Goodwin) AUTOVON 564-7221 is available for additional assistance on this matter.

J. R. BAILEY
By direction

Blind Copy to:
11S
114 (2 copies)
114S
09BS(w/o encl)
Doc #5393A/sbw

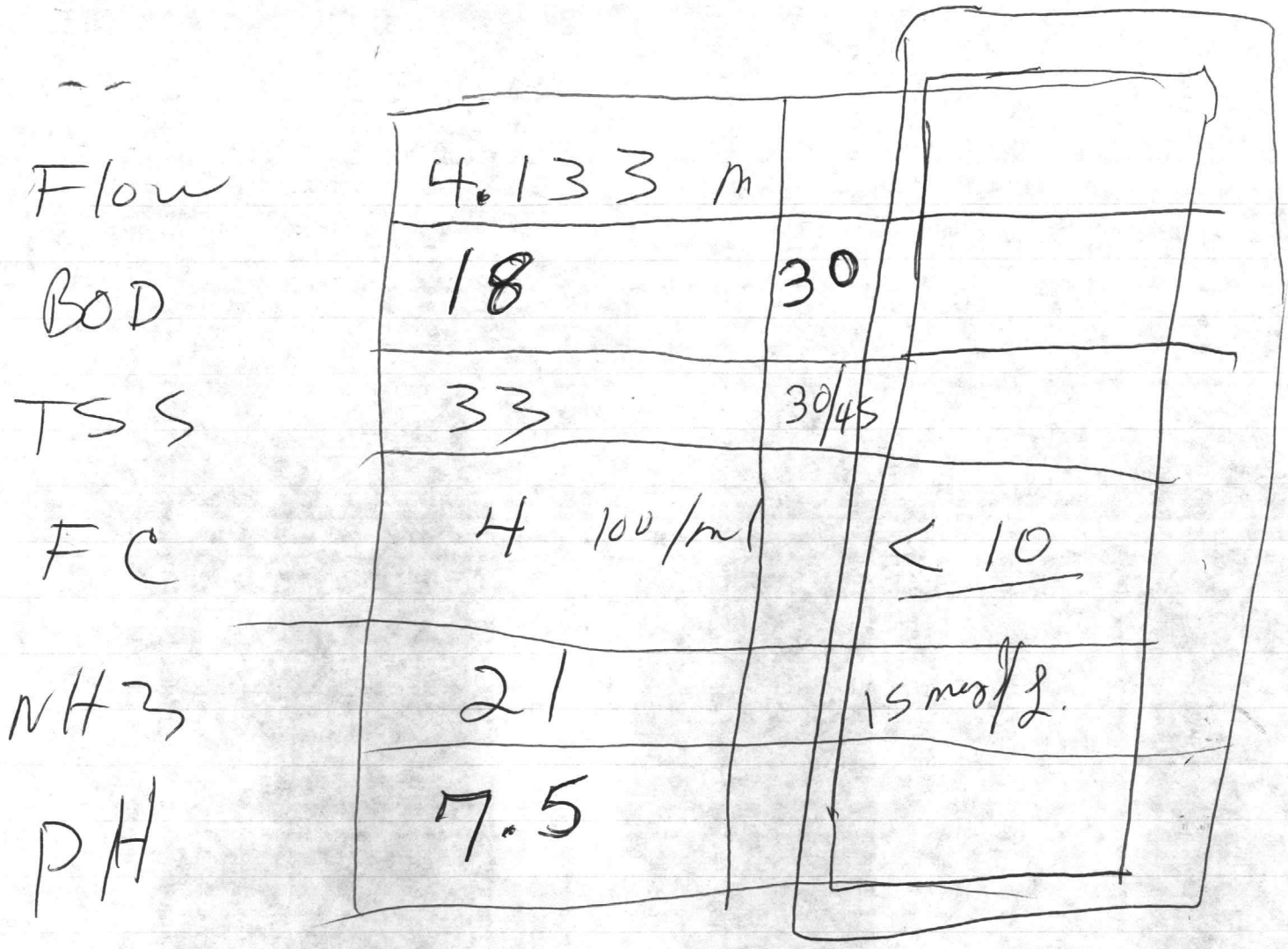
ESTIMATED MONITORING COSTS (EXCL. D.O., TEMP., pH.)
and upstream/downstream
ASSUMING: 5 YEAR PERMIT, "DAILY" is 5/WK
monitoring frequency is the same for all plants

Note: Costs from FY-85/86 contracts (2)

PARAMETER	PRESENT PERMIT	DRAFT PERMIT	COUNTER-PROPOSAL
BOD	3640 X $20.00 = 72,800	4380 X $20.00 = 87,600	2820 X $20.00 = 56,400
TSS	3640 X $10.00 = 36,400	4380 X $10.00 = 43,800	2820 X $10.00 = 28,200
F. COLI.	3120 X $20.00 = 62,400	9238 X $20.00 = 184,760	3443 X $20.00 = 68,860
OIL	0	4380 X $25.00 = 109,500	2820 X $25.00 = 70,500
NH_3	0	4380 X $15.00 = 65,700	1143 X $15.00 = 17,145
N	0	300 X $31.80 = 9,540	300 X $31.80 = 9,540
P	0	300 X $16.00 = 4,800	300 X $16.00 = 4,800
Collect (STP)	3640 X $13.97 = 50,850.80	4380 X $13.97 = 61,188.60	2820 X $13.97 = 39,395.40
Collect (River)	0	347 X $1110.20* = 385,239.40	127 X 1110.20* = 140,995.40
	$222,450.80, Say $225K	$952,128.00, Say $1 Million	$435,835.80, Say $450K
	($44,490.16/yr., Say $45K/yr.)	($190,425.60/yr., Say $200K/yr.)	($87,167.16/yr. Say $90K/yr.)
		444% of Present	200% of Present

*May be somewhat high
for MCB but did not include travel, per diem
and SIOH costs in total.

Encl (1)


Flow
4.133 m
BOD
18
30
TSS
33
30/45
FC
4 100/ml
< 10
NH3
21
15 mg/l.
pH
7.5

ONly NC 0062995 Is Complete Copy

Permit No. NC0062995

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

P E R M I T

To Discharge Wastewater Under The

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

US Marine Corps

is hereby authorized to discharge wastewater from a facility located on

Camp LeJeune
Camp Geiger Sewage Treatment Plant
Onslow County

to receiving waters designated as the New River in the White Oak River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall be effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day of

DRAFT

R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

US Marine Corps Base
Camp LeJeune

is hereby authorized to:

1. Enter into a contract for construction of a wastewater treatment facility, and

2. Make an outlet into the New River, and

3. Continue to operate a I.6 MGD trickling filter type wastewater treatment plant consisting of an influent grit channel and comminutors, aerated flow equalization basin, dual primary clarifiers, dual anaerobic sludge digestors, sludge drying beds, dual trickling filters, dual secondary clarifiers, dual tertiary filters, a chlorine contact chamber, a decant basin for recycling of tertiary filter backwash, and a device for continuous flow measurement located at Camp Geiger Sewage Treatment Plant in Onslow County (See Part III, Condition No. B. of this permit), and

4. Discharge from said treatment works into the New River which is classified Class "SC" waters in the White Oak River Basin.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final Winter: November 1 - March 31

During the period beginning on the effective date of the Permit **and lasting until** expiration, **the permittee is authorized to discharge from outfall(s) serial number(s)** 001. **Such discharges shall be limited and monitored by the permittee as specified below:**

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)		Measurement	Sample	* Sample
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Frequency	Type	Location
Flow			1.6 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			13.0 mg/l	19.5 mg/l	Daily	Composite	E
Total Suspended Residue			30.0 mg/l	45.0 mg/l	Daily	Composite	E
NH_3 as N			4.0 mg/l	6.0 mg/l	Daily	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/l	5.0 mg/l	Daily	Grab	E,U,D
Fecal Coliform (geometric mean)			1000.0/100 ml	2000.0/100 ml	Daily	Grab	E,U,D
Residual Chlorine			200	400	Daily	Grab	E
Temperature					Daily	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Monthly	Composite	E
Total Phosphorus					Monthly	Composite	E
Oil and Grease			30.0 mg/l	60.0 mg/l **	Daily	Composite	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream **Daily Maximum Limit

Upstream and downstream samples shall be grab samples.

Stream samples shall be collected three times per week during June, July, August and September and once per week during the remaining months of the year.

The pH shall not be less than 6.8 **standard units nor greater than** 8.5 **standard units and shall be monitored** daily at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final Summer: April 1 - October 31

During the period beginning on the effective date of the Permit **and lasting until** expiration, **the permittee is authorized to discharge from outfall(s) serial number(s)** 001. **Such discharges shall be limited and monitored by the permittee as specified below:**

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)				
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type	* Sample Location
Flow			1.6 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			10.0 mg/1	15.0 mg/1	Daily	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	Daily	Composite	E
NH_3 as N			3.0 mg/1	4.5 mg/1	Daily	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Daily	Grab	E,U,D
Fecal Coliform (geometric mean)			1000.0/100 ml	2000.0/100 ml	Daily	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Daily	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Monthly	Composite	E
Total Phosphorus					Monthly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1**	Daily	Composite	E

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There shall be no discharge of floating solids or visible foam in other than trace amounts.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

"Act" used herein means the Federal Water Pollution Control Act, As Amended.
"DEM" used herein means the Division of Environmental Management of the Department of Natural Resources and Community Development.
"EMC" used herein means the North Carolina Environmental Management Commission.

C. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous month(s) shall be summarized for each month and reported on a Monthly Monitoring Report Form (DEM No. MR 1.0, 1.1, and 1.4) , postmarked no later than the 30th day following the completed reporting period.
The first report is due on . Duplicate signed copies of these, and all other reports required herein, shall be submitted to the following address:

Division of Environmental Management
Water Quality Section
Post Office Box 27687
Raleigh, North Carolina 27611

3. Definitions

a. The monthly average, other than for fecal coliform bacteria, is the arithmetic mean of all the composite samples collected in a one-month period. The monthly average for fecal coliform bacteria is the geometric mean of samples collected in a one-month period.

b. The weekly average, other than for fecal coliform bacteria, is the arithmetic mean of all the composite samples collected during a one-week period. The weekly average for fecal coliform bacteria is the geometric mean of samples collected in a one-week period.

c. Flow, M^3/day (MGD): The flow limit expressed in this permit is the 24 hour average flow, averaged monthly. It is determined as the arithmetic mean of the total daily flows recorded during the calendar month.

d. Arithmetic Mean: The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.

e. Geometric Mean: The geometric mean of any set of values is the Nth root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

f. Composite Sample: A "composite sample" is any of the following:

(1) Not less than four influent or effluent portions collected at regular intervals over a period of 24 hours and composited in proportion to flow.

(2) Not less than four equal volume influent or effluent portions collected over a period of 24 hours at intervals proportional to the flow.

(3) An influent or effluent portion collected continuously over a period of 24 hours at a rate proportional to the flow.

g. Grab Sample: A "grab sample" is a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the total discharge.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to the EMC regulations published pursuant to N. C. G. S. 143-215.63 et seq, The Water and Air Quality Reporting Act, and to regulations published pursuant to Section 304(g), 33 USC 1314, of the Federal Water Pollution Control Act, As Amended, and Regulation 40 CFR 136.

5. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling;

b. The dates the analyses were performed; and

c. The person(s) who performed the analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Monitoring Report Form (DEM No. MR 1.0, 1.1, and 1.4) Such increased frequency shall also be indicated. The DEM may require more frequent monitoring or the monitoring of other pollutants not required in this permit by written notification.

7. Records Retention

All records and information resulting from the monitoring activities required by this Permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Division of Environmental Management or the Regional Administrator of the Environmental Protection Agency.

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the DEM of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Non compliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide the Division of Environmental Management with the following information, in writing, within five (5) days of becoming aware of such condition:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected; the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where

unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Water Quality Section of DEM in writing of each such diversion or bypass.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States.

7. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

a. In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if such alternative power source is not in existence, and no date for its implementation appears in Part I,

b. Halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

8. Onshore or Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Director of the Division of Environmental Management, the Regional Administrator, and/or their authorized representatives, upon the presentations of credentials:

a. The enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

This permit is not transferable. In the event of any change in control or ownership of facilities from which the authorized discharge emanates or is contemplated, the permittee shall notify the prospective owner or controller by letter of the existence of this permit and of the need to obtain a permit in the name of the prospective owner. A copy of the letter shall be forwarded to the Division of Environmental Management.

3. Availability of Reports

Except for data determined to be confidential under N. C. G. S. 143-215. 3(a)(2) or Section 308 of the Federal Act, 33 USC 1318, all reports prepared in accordance with the terms shall be available for public inspection at the offices of the Division of Environmental Management. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in N. C. G. S. 143-215.6(b)(2) or in Section 309 of the Federal Act.

4. Permit Modification

After notice and opportunity for a hearing pursuant to N. C. G. S. 143-215.1(b)(2) and G. S. 143-215.1(e) respectively, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

5. Toxic Pollutants

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, A-5) and "Power Failures" (Part II, A-7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to N. C. G. S. 143-215.6 or Section 309 of the Federal Act, 33 USC 1319.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under N. C. G. S. 143-215.75 et seq. or Section 311 of the Federal Act, 33 USC 1321.

8. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal,State or local laws or regulations.

9. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

10. Expiration of Permit

Permittee is not authorized to discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date. Any discharge without a permit after the expiration will subject the permittee to enforcement procedures as provided in N. C. G. S. 143-215.6 and 33 USC 1251 et seq..

A. Previous Permits

All previous State water quality permits issued to this facility, whether for construction or operation or discharge, are hereby revoked by issuance of this permit. The conditions, requirements, terms, and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System governs discharges from this facility.

B. Construction

No construction of wastewater treatment facilities or additions thereto shall be begun until Final Plans and Specifications have been submitted to the Division of Environmental Management and written approval and Authorization to Construct has been issued. If no objections to final plans and specifications have been made by the Division of Environmental Management within 60 days following acknowledgement that a complete set of final plans and specifications has been received, the plans may be considered approved and construction authorized.

C. Certified Operator

Pursuant to Chapter 90A of North Carolina General Statutes, the permittee shall employ a certified wastewater treatment plant operator in responsible charge of the wastewater treatment facilities. Such operator must hold a certification of the grade equivalent to the classification assigned to the wastewater treatment facilities.

D. Groundwater Monitoring

The permittee shall, upon written notice from the Director of the Division of Environmental Management, conduct groundwater monitoring as may be required to determine the compliance of this NPDES permitted facility with the current groundwater standards.

Permit No. NC0063053

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

P E R M I T

To Discharge Wastewater Under The

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

US Marine Corps Base

is hereby authorized to discharge wastewater from a facility located at

Camp Lejeune
Onslow Beach Sewage Treatment Plant
Onslow County

to receiving waters designated as the Intracoastal Waterway in the White Oak River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall be effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day of

DRAFT

R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

US Marine Corps Base
Camp LeJeune

is hereby authorized to:

1. Continue to operate a 0.195 MGD trickling filter type wastewater treatment plant located at Onslow Beach Sewage Treatment Plant in Onslow County (See Part III, condition No. B. of this permit), and

2. Discharge from said treatment works into Intracoastal Waterway which is classified Class "SA" waters in the White Oak River Basin.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final

During the period beginning on the effective date of the Permit **and lasting until** expiration, **the permittee is authorized to discharge from outfall(s) serial number(s)** 001. **Such discharges shall be limited and monitored by the permittee as specified below:**

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)		Measurement	Sample	* Sample
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Frequency	Type	Location
Flow			0.195 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
NH_3 as N					2/Month	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Weekly	Grab	E,U,D
Fecal Coliform (geometric mean)			14.0/100 ml	28.0/100 ml	2/Month	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Weekly	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Quarterly	Composite	E
Total Phosphorus					Quarterly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1 **	2/Month	Grab	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream

**Daily Maximum Limit

The pH shall not be less than 6.8 **standard units nor greater than** 8.5 **standard units and shall be monitored** 2/Month at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Permit No. NC0063037

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

P E R M I T

To Discharge Wastewater Under The

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

US Marine Corps Base

is hereby authorized to discharge wastewater from a facility located at

Camp LeJeune
Rifle Range Sewage Treatment Plant
Onslow County

to receiving waters designated as the New River in the White Oak River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall be effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day of

DRAFT

R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental
Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

US Marine Corps Base
Camp LeJeune

is hereby authorized to:

1. Continue to operate a 0.525 MGD trickling filter type wastewater treatment plant located at Rifle Range Sewage Treatment Plant in Onslow County (See Part III, condition No. B. of this permit), and

2. Discharge from said treatment works into the New River which is classified Class "SC" waters in the White Oak River Basin.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final

During the period beginning on the effective date of the Permit **and lasting until** expiration, the permittee is authorized to discharge from outfall(s) serial number(s) 001. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type	* Sample Location
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.			
Flow			0.525 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
NH_3 as N					2/Month	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Weekly	Grab	E,U,D
Fecal Coliform (geometric mean)			14.0/100 ml	28.0/100 ml	2/Month	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Weekly	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Quarterly	Composite	E
Total Phosphorus					Quarterly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1**	2/Month	Grab	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream

**Daily Maximum Limit

The pH shall not be less than 6.8 **standard units nor greater than** 8.5 **standard units and shall be monitored** 2/Month at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Permit No. NC0063029

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

P E R M I T

To Discharge Wastewater Under The

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

US Marine Corps

is hereby authorized to discharge wastewater from a facility located at

Camp LeJeune
Hadnot Point Sewage Treatment Plant
Onslow County

to receiving waters designated as the New River in the White Oak River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall be effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day of

DRAFT

R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental
Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

US Marine Corps Base
Camp LeJeune

is hereby authorized to:

1. Enter into a contract for construction of a wastewater treatment facility, and

2. Make an outlet into the New River, and

3. Continue to operate a 8.0 MGD trickling filter type wastewater treatment plant consisting of an influent grit channel and comminutors, primary clarifiers, dual trickling filters, anaerobic sludge digestors, dual secondary clarifiers, a chlorine contact chamber, sludge drying beds, and a flow measuring device located at Hadnot Point Sewage Treatment Plant in Onslow County (See Part III, Condition No. B. of this permit), and

4. Discharge from said treatment works into the New River which is classified Class "SC" waters in the White Oak River Basin.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final (with diffuser) Winter: November 1 - March 31

During the period beginning on the effective date of the Permit **and lasting until** expiration, **the permittee is authorized to discharge from outfall(s) serial number(s)** 001. **Such discharges shall be limited and monitored by the permittee as specified below:**

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)				
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type	* Sample Location
Flow			8.0 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			22.0 mg/1	33.0 mg/1	Daily	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	Daily	Composite	E
NH_3 as N			19.0 mg/1	28.5 mg/1	Daily	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Daily	Grab	E,U,D
Fecal Coliform (geometric mean)			14.0/100 ml	28.0/100 ml	Daily	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Daily	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Monthly	Composite	E
Total Phosphorus					Monthly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1 **	Daily	Composite	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream **Daily Maximum Limit

Upstream and downstream samples shall be grab samples.

Stream samples shall be collected three times per week during June, July, August and September and once per week during the remaining months of the year.

The pH shall not be less than 6.8 **standard units nor greater than** 8.5 **standard units and shall be monitored** daily at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final (with diffuser) Summer: April 1 - October 31

During the period beginning on the effective date of the Permit **and lasting until** expiration, **the permittee is authorized to discharge from outfall(s) serial number(s)** 001. **Such discharges shall be limited and monitored by the permittee as specified below:**

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)				
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type	* Sample Location
Flow			8.0 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			22.0 mg/1	33,0 mg/1	Daily	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	Daily	Composite	E
NH_3 as N			13.0 mg/1	19.5 mg/1	Daily	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Daily	Grab	E,U,D
Fecal Coliform (geometric mean)			14.0/100 ml	28.0/100 ml	Daily	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Daily	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Monthly	Composite	E
Total Phosphorus					Monthly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1 **	Daily	Composite	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream **Daily Maximum Limit

Upstream and downstream samples shall be grab samples.

Stream samples shall be collected three times per week during June, July, August and September and once per week during the remaining months of the year.

The pH shall not be less than 6.8 **standard units nor greater than** 8.5 **standard units and shall be monitored** daily at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Permit No. NC0063045

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

P E R M I T

To Discharge Wastewater Under The

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

US Marine Corps Base

is hereby authorized to discharge wastewater from a facility located at

Camp LeJeune
Courthouse Bay Sewage Treatment Plant
Onslow County

to receiving waters designated as the New River in the White Oak River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall be effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day of

DRAFT

R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental
Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

US Marine Corps Base
Camp LeJeune

is hereby authorized to:

1. Continue to operate a 0.6 MGD trickling filter type wastewater treatment plant located at Courthouse Sewage Treatment Plant in Onslow County (See Part III, condition No. B. of this permit), and

2. Discharge from said treatment works into the New River which is classified Class "SC" waters in the White Oak River Basin.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final

During the period beginning on the effective date of the Permit and lasting until expiration, the permittee is authorized to discharge from outfall(s) serial number(s) 001. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)		Measurement	Sample	* Sample
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Frequency	Type	Location
Flow			0.600 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
NH_3 as N					2/Month	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Weekly	Grab	E,U,D
Fecal Coliform (geometric mean)			14.0/100 ml	28.0/100 ml	2/Month	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Weekly	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Quarterly	Composite	E
Total Phosphorus					Quarterly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1**	2/Month	Grab	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream

**Daily Maximum Limits

The pH shall not be less than 6.8 standard units nor greater than 8.5 standard units and shall be monitored 2/Month at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Permit No. NC0063002

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

P E R M I T

To Discharge Wastewater Under The

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

US Marine Corps Base

is hereby authorized to discharge wastewater from a facility located at

Camp LeJeune
Tarawa Terrace Sewage Treatment Plant
Onslow County

to receiving waters designated as Northeast Creek in the White Oak River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall be effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day of

DRAFT

R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental
Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

US Marine Corps Base
Camp LeJeune

is hereby authorized to:

1. Continue to operate a 1.25 MGD trickling filter type wastewater treatment plant located at Tarawa Terrace Sewage Treatment Plant in Onslow County (See Part III, condition No. B. of this permit), and

2. Discharge from said treatment works into Northeast Creek which is classified Class "SC" waters in the White Oak River Basin.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final

During the period beginning on the effective date of the Permit **and lasting until** expiration, **the permittee is authorized to discharge from outfall(s) serial number(s)** 001. **Such discharges shall be limited and monitored by the permittee as specified below:**

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)		Measurement	Sample	* Sample
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Frequency	Type	Location
Flow			1.25 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			30.0 mg/1	45.0 mg/1	Daily	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	Daily	Composite	E
NH_3 as N					Daily	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Daily	Grab	E,U,D
Fecal Coliform (geometric mean)			1000.0/100 ml	2000.0/100 ml	Daily	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Daily	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Monthly	Composite	E
Total Phosphorus					Monthly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1 **	Daily	Grab	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream **Daily Maximum Limit

Upstream and downstream samples shall be grab samples.

Stream samples shall be collected three times per week during June, July, August and September and once per week during the remaining months of the year.

The pH shall not be less than 6.8 **standard units nor greater than** 8.5 **standard units and shall be monitored** daily at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Permit No. NC0063011

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

P E R M I T

To Discharge Wastewater Under The

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission and the Federal Water Pollution Control Act, as amended,

US Marine Corps Base

is hereby authorized to discharge wastewater from a facility located at

Camp LeJeune
Camp Johnson Sewage Treatment Plant
Onslow County

to receiving waters designated as the Northeast Creek in the White Oak River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall be effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day of

DRAFT

R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental
Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

US Marine Corps Base
Camp LeJeune

is hereby authorized to:

1. Continue to operate a 1.0 MGD trickling filter type wastewater treatment plant located at Camp Johnson Sewage Treatment Plant in Onslow County (See Part III, condition No. B. of this permit), and

2. Discharge from said treatment works into Northeast Creek which is classified Class "SC" waters in the White Oak River Basin.

A. (1). **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** Final (with diffuser)

During the period beginning on the effective date of the Permit **and lasting until** expiration, **the permittee is authorized to discharge from outfall(s) serial number(s)** 001. **Such discharges shall be limited and monitored by the permittee as specified below:**

Effluent Characteristics	Discharge Limitations				Monitoring Requirements		
	Kg/day (lbs/day)		Other Units (Specify)		Measurement	Sample	* Sample
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.	Frequency	Type	Location
Flow			1.0 MGD		Continuous	Recording	I or E
BOD, 5Day, 20°C			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
Total Suspended Residue			30.0 mg/1	45.0 mg/1	2/Month	Composite	E
NH_3 as N					2/Month	Composite	E
Dissolved Oxygen (minimum)			5.0 mg/1	5.0 mg/1	Weekly	Grab	E,U,D
Fecal Coliform (geometric mean)			1000.0/100 ml	2000.0/100 ml	2/Month	Grab	E,U,D
Residual Chlorine					Daily	Grab	E
Temperature					Weekly	Grab	E,U,D
Total Nitrogen (NO_2 + NO_3 + TKN)					Monthly	Composite	E
Total Phosphorus					Monthly	Composite	E
Oil and Grease			30.0 mg/1	60.0 mg/1 **	2/Month	Grab	E

*Sample locations: E - Effluent, I - Influent, U - Upstream, D - Downstream

**Daily Maximum Limit

The pH shall not be less than 6.8 **standard units nor greater than** 8.5 **standard units and shall be monitored** 2/Month at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Dan Betz DDL

File at NREAD

6280/4
FAC
31 DEC 1985

From: Commanding General, Marine Corps Base, Camp Lejeune
To: Commanding Officer, Atlantic Division, Naval Facilities Engineering Command, Norfolk, VA 23511-6287 (Code 114)

Subj: RENEWAL OF SEWAGE DISCHARGE PERMIT

Encl: (1) Public Notice with Draft Permits (received from NC Div of Environmental Management, 11-25-85)

1. This advance copy of the enclosure is provided for your information and review. Formal review of the permit conditions by Camp Lejeune will be requested by the State of North Carolina after the first of the year. We will seek your input at that time.

2. Significant proposals are summarized below:

a. Rather than a single permit with seven outfalls, draft permits are proposed for each plant.

b. Extensive monitoring requirements are specified.

c. Current effluent limits are retained for all plans except Camp Geiger.

d. Camp Geiger effluent BOD is reduced from 30 mg/l to 13 mg/l; effluent ammonia nitrogen is estalished at 4 mg/l.

3. Please advise us if your review indicates problems in complying with the terms of the proposed permit.

4. For further information on this matter please contact Mr. Bob Alexander, Environmental Engineer, AV 484-3034.

R. A. TIEBOUT
By direction

Blind copy to;
BMO
NREAD
EnvEngr

PUBLIC NOTICE

STATE OF NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION

POST OFFICE BOX 27687

RALEIGH, NORTH CAROLINA 27611-7687

NOTIFICATION OF INTENT TO ISSUE A STATE NPDES PERMIT

Public notice of intent to issue a State NPDES permit to the following:

1. US Marine Corps, Camp LeJeune, Onslow Beach Sewage Treatment Plant, Onslow County, NPDES No. NC0063053 (renewal and modification). There is one existing discharge of treated domestic wastewater into the Intracoastal Waterway located at the end of Mockup Road. The modification is to establish a separate permit for this sewage treatment plant.

2. US Marine Corps, Camp LeJeune, Rifle Range Sewage Treatment Plant, Onslow County, NPDES No. NC0063037 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located off of NC Highway 210 at the Base Rifle Range, just north of NC Highway 172. The modification is to establish a separate permit for this sewage treatment plant.

3. US Marine Corps, Camp LeJeune, Camp Geiger Sewage Treatment Plant, Onslow County, NPDES No. NC0062995 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located east of US Highway 17, just north of Brinson Creek. The modification is to establish a separate permit for this sewage treatment plant.

4. US Marine Corps, Camp LeJeune, Hadnot Point Sewage Treatment Plant, Onslow County, NPDES No. NC0063029 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located east of Sneads Ferry Road, just north of Cogdels Creek. The modification is to establish a separate permit for this sewage treatment plant.

5. US Marine Corps, Camp LeJeune, Courthouse Sewage Treatment Plant, Onslow County, NPDES No. NC0063045 (renewal and modification). There is one existing discharge of treated domestic wastewater into the New River located south of NC Highway 172 in a section of the Base known as Canary, east of the New River. The modification is to establish a separate permit for this sewage treatment plant.

6. US Marine Corps, Camp LeJeune, Tarawa Terrace Sewage Treatment Plant, Onslow County, NPDES No. NC0063002 (renewal and modification). There is one existing discharge of treated domestic wastewater into Northeast Creek located south of NC Highway 24 just before crossing Northeast Creek on NC Highway 24. The modification is to establish a separate permit for this sewage treatment plant.

7. US Marine Corps, Camp LeJeune, Camp Johnson Sewage Treatment Plant, Onslow County, NPDES No. NC0063011 (renewal and modification).

There is one existing discharge of treated domestic wastewater into Northeast Creek located south of NC Highway 24 near the confluence of Northeast Creek and the New River. The modification is to establish a separate permit for this sewage treatment plant.

8. Webb Creek Water & Sewage, Inc., Queens Creek Development, Onslow County, NPDES No. NC0062642 (new). There are two proposed discharges of treated domestic wastewater into Wallace Creek located on NC Highway 24 and into Webb Creek on NCSR 1432.

9. Horse Creek Farms Utilities Corp. - Rocky Run Road Tract, Onslow County, NPDES No. NC0062359 (new and modification). There is one proposed discharge of treated domestic wastewater into an unnamed tributary to Little Northeast Creek located near the intersection of NCSR 1427 and 1423 in Jacksonville. The modification is for a name change and to add limits for a 0.050 MGD flow rate.

On the basis of preliminary staff review and application of Article 21 of Chapter 143, General Statutes of North Carolina, Public Law 92-500 and other lawful standards and regulations, the North Carolina Environmental Management Commission proposes to issue a permit to discharge to the persons listed above effective January 2, 1986 and subject to special conditions.

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the above address no later than December 18, 1985. All comments received prior to that date will be considered in the formulation of final determinations regarding the proposed permit. A public hearing may be held where the Director of the Division of Environmental Management finds a significant degree of public interest in a proposed permit.

A copy of the draft permit is available by writing or calling the Division of Environmental Management, Archdale Building, Raleigh, NC, 919/733-5083 or the Wilmington Regional Office, 7225 Wrightsville Avenue, Wilmington, NC, 919/256-4161.

The application and other information may be inspected at these locations during normal office hours. Copies of the information on file are available upon request and payment of the costs of reproduction. All such comments or requests regarding a proposed permit should make reference to the NPDES permit number listed above.

Date November 13, 1985

Arthur Mouberry

R. Paul Wilms, Director
for Division of Environmental Management

From Bob → at Wilmington Meeting 13 Jan 86

6280/4
FAC

Mr. R. Paul Wilms, Director
N. C. Division of Environmental Management
P. O. Box 27687
Raleigh, NC 27611-7687

Re: Renewal of N.P.D.E.S. Permit
Marine Corps Base, Camp Lejeune

Dear Mr. Wilms:

As stated in our December 30, 1985 letter, we are forwarding as the enclosure, preliminary staff review comments of the draft N.P.D.E.S. permits. A meeting has been tentatively scheduled at Camp Lejeune on January 28, 1986 to discuss these comments with the N.C. Division of Environmental Management Permitting Unit, Wilmington Regional Office, and the Atlantic Division, Naval Facilities Engineering Command. The meeting will be in the Facilities Conference Room, Building 1 at 10:30 a.m.

We are concerned regarding proposed effluent limits for Camp Geiger and Hadnot Point sewage plants. The proposed limits for Camp Geiger appear to require advanced wastewater treatment whereas secondary limits have previously been adequate. As noted in our 7 November 1984 letter requesting permit renewal, over $8 million have been spent since 1979 on construction of pollution abatement facilities. Further, we are not aware of any data concerning New River water quality which would require such stringent effluent limits.

Upgrading effluent quality as proposed in the draft permit would likely cost millions of dollars. In addition, any compliance schedule required ~~to~~ by the draft permits should reflect a reasonable and achievable timeframe for implementation. Major

military construction projects usually require longer than five years for project development, Congressional approval, and construction.

The draft permit also proposed a substantial increase in monitoring of effluent and receiving stream quality. Preliminary cost estimates for this proposal indicate yearly monitoring costs would more than double to comply with the draft permit provisions.

I can assure you, this Command will strive to meet effluent limits necessary to protect and improve water quality levels in New River. Mr. Bob Alexander, Marine Corps Base Environmental Engineer, 919-451-3034, will provide any further information you may desire on this matter.

Sincerely,

R. A. TIEBOUT
Colonel, U.S. Marine Corps
Assistant Chief of Staff, Facilities
By direction of the Commanding General

Encl:
(1) Draft N.P.D.E.S. Permits Review Comments

Copy to:
CMC (LFL)
CO, LANTDIV (Code 114)
NCDEM, Wilmington

DRAFT PERMITS FOR MARINE CORPS BASE, CAMP LEJEUNE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

(N.P.D.E.S)

Camp Lejeune Review Comments

Draft Permit No.	Location of Sewage Treament Plant
NC0062995	Camp Geiger
NC0063002	Tarawa Terrace
NC0063011	Camp Johnson
NC0063029	Hadnot Point
NC0063037	Rifle Range
NC0063045	Courthouse Bay
NC0063053	Onslow Beach

General Questions and Comments:

a. Why are seven individual permits proposed instead of one permit with multiple discharges?

b. Request the waste load allocation study be provided which describes mathematical modeling and assumptions for background conditions and upstream discharges.

c. Request information on stream classifications for New River and tributaries as published in the White Oak River Basin Water Quality Management Plan.

d. The comment regarding sampling frequency i.e., "Stream samples shall be collected . . . months of the year" is not included in section A(1), Effluent Limitations, for Camp Johnson, Rifle Range, Courthouse Bay, and Onslow Beach but is shown on remaining draft permits.

Specific Questions and Comments:

a. The more restrictive effluent B.O.D. and ammonia nitrogen limits for Camp Geiger and Hadnot Point plants probably cannot be met with existing equipment. The considerable change from previous effluent limits seems inconsistent with State and EPA inspection reports issued to Camp Lejeune for several years which have indicated satisfactory compliance with current standards.

b. In the Supplement to Permit Cover Sheet, permit authorizations vary; authority to "continue to operate" should be common to all plants; approval for construction of plant modifications is applicable for Hadnot Point and Courthouse Bay.

c. Proposed effluent dissolved oxygen limits on all plants appear to require installation of effluent aeration equipment.

d. Proposed fecal coliform limits of 14 to 28 per 100 ml for Hadnot Point appear overly restrictive for discharge into class SC waters. Increased chlorination to meet this level raises concerns of chlorine toxicity to aquatic life.

e. Limiting the effluent ph to levels greater than 6.8 is a major change from the current permit limit of 6.0 and may represent a substantial treatment cost increase to comply.

yes f. Does "daily" sampling mean week days only?

g. Will the permit duration extend for five years or ~~ten~~ years?

h. Should the Oil and Grease samples for Camp Geiger and Hadnot Point be collected on a grab sample ~~vice composite~~ as shown?

Other Discharges not addressed in the Draft Permits

a. Permit renewal was requested in the November 1984 application for discharging Onslow Beach Water Treatment Plant backwash into the Atlantic Intercoastal Waterway. Draft permits did not address this effluent. State overlooked - will look at this

b. We expect to eliminate during the coming year the discharge from a vehicle washrack at Building 1450, Combat Vehicle Maintenance Shop. State will look at this

c. Storm water outfalls should be reviewed based on monthly monitoring data for 1977-1984. As requested in the renewal application, discontinued monitoring of the 71 outfalls currently being sampled was based on achievements in reducing oily discharges to near the limit of detection.

d. Data is currently being collected on a discharge of heated water and runoff from the fly ash collection system, Building 1700, Main Steam Plant. We will review this discharge during the meeting.

II R7

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

TELEPHONE NO.
(804) 444-1179

IN REPLY REFER TO:
6280
1142DPG

24 DEC 1985

From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commanding General, Marine Corps Base, Camp Lejeune

Subj: DRAFT WASTEWATER PERMITS

Ref: (a) MARCORB Camp Lejeune ltr 6280/4 FAC of 11 Dec 85 (Rec'd 13 Dec 85)
(b) North Carolina Draft Permits Public Notice of 13 Nov 85
(c) PHONCON MARCOMB Camp Lejeune (Bob Alexander)/LANTNAVFACENGCOM Code 1142 (Dave Goodwin) of 16 Dec 85
(d) PHONCON North Carolina (Ms. Kay McNeil, 919-733-5083)/ LANTNAVFACENGCOM Code 1142 (Dave Goodwin) of 16 Dec 85

Encl: (1) Estimated Monitoring Costs

1. Reference (a) forwarded reference (b) to review for problems.

2. As discussed via reference (c), reference (d) confirmed that as stated in reference (b), the commenting period is only until 18 December 85. In accordance with reference (c), MCB Camp Lejeune agreed to immediately request a 45 day extension for the comments provided below to be reviewed by North Carolina and then discussed in a meeting during the week of 20 January 1986. Without an extension the permit belongs final on 2 January 1986 and would require an immediate request for an adjudication hearing.

3. As discussed by reference (c), there are major problems with reference (b):

a. Advanced Wastewater Treatment Plant BOD/NH_3 limits for Camp Geiger and Hadnot Point probably cannot be met with existing equipment (eg. permit application indicates Camp Geiger cannot meet proposed BOD limit). Cost of upgrades could be in the millions of dollars. The draft permits do not provide compliance schedules; eg., enforcement action for non-compliance could begin almost immediately whereas FY-89/90 MCON Projects could not be operational until FY-91/92. Even if North Carolina expects the permit limits to be meet with existing equipment, accepting such limits could limit growth in the Hadnot Point and Camp Geiger areas. If North Carolina insists on the limits, they should provide for our review a Waste Load Allocation Report justifiying such limits. North Carolina should be reminded that the over 10 years of receiving water data, submitted with the DMRs, does not indicate a water quality problem. F. Coli. limits should be <u>retained</u> at 200 average, 400 maximum and not <u>raised</u> to 1000 average, 2000 maximum on three plants and lowered to 14 average, 28 maximum on four plants, which will require toxic amounts of chlorine to comply.

Mon 13
Tue 21

(b) As noted via enclosure (1), the draft permit estimated monitoring costs, if accepted as is, would be approximately $1 million over the anticipated 5 year life of the permit; i.e., about 444% of the present permit estimated monitoring costs. LANTNAVFACENGCOM Code 1142 recommends the following counter-proposal be made which would still cost about $90K per year (about 200% of the present cost):

(1) Retain twice per week BOD/TSS/F. Coli. monitoring at Camp Geiger and Tarawa Terrace and three times per week F. Coli. monitoring at Hadnot Point; especially since as documented in the DMRs the plants have produced a better than secondary effluent for over 10 years.

(2) Retain existing 9 monitoring stations, (14 proposed by reference (b)), monitor weekly during June through September and monthly during October through May and monitor plant NH_3 at these times (only).

(3) Oil should be monitored at same frequency as proposed above for F. Coli.

Note: North Carolina should also be requested to provide documentation that all the monitoring requirements are consistent with that imposed other facilities.

4. As also discussed via reference (c), other items in need of modification/clarification include:

a. North Carolina should provide the Permit Fact Sheet and the rest of Permit for our review.

b. Unclear whether North Carolina is requiring diffusor for Hadnot Point and Camp Johnson.

c. Unclear as to why North Carolina granting contract and outfall approvals for Hadnot Point and Camp Geiger but not construction approval for Courthouse Bay where the only significant construction is taking place.

d. Permit apparently requires effluent aeration which would require OMN projects but no compliance schedule provided and over 10 years of receiving water monitoring does not indicate a water quality problem.

e. Similiarly, compliance with pH limits of 6.8 to 8.5 is not possible based on the DMR data but no compliance schedule provided, no justification provided (requiring sewage plant pH control equipment is very unusual), and over 10 years of receiving water monitoring does not indicate a water quality problem.

f. Although not as major of a cost, it appears unnecessary to collect, report and have North Carolina review over the next five years, 4940 effluent temperatures values, 4940 effluent D.O. values and 4380 effluent pH values, especially since the plant operators cannot control these parameters. Suggest it is much more meaningful to have these parameters monitored (only) at the same time as the receiving water samples proposed above.

Subj: DRAFT WASTEWATER PERMITS

g. Should confirm "daily" means weekdays (only).

h. Should confirm five year permit.

i. Should confirm stream footnote inadvertantly deleted for Onslow Beach, Rifle Range, Courthouse Bay and Camp Johnson.

j. Request status on water plant permit (outfall 008 of application) and Building ~~1460~~ 1450 and fly ash run off.

k. Suggest for adminstrative reasons one permit not seven (or eight) would be easier; i.e. outfalls 001 through 007 (or 008).

l. Hadnot Point Oil sample type should read grab not composite.

5. We should, of course, stress to North Carolina that our policy is to <u>continue</u> to provide Pollution Abatement and compliance and <u>retain</u> a nonadversary working relationship.

6. LANTNAVFACENGCOM Code 1142 (Dave Goodwin) AUTOVON 564-7221 is available for additional assistance on this matter.

David Goodwin
for J. R. BAILEY
By direction

ESTIMATED MONITORING COSTS (EXCL. D.O., TEMP., pH.)
and upstream/downstream
ASSUMING: 5 YEAR PERMIT, "DAILY" is 5/WK
monitoring frequency is the same for all plants

Note: Costs from FY-85/86 contracts (2)

PARAMETER	PRESENT PERMIT	DRAFT PERMIT	COUNTER-PROPOSAL
BOD	3640 X $20.00 = 72,800	4380 X $20.00 = 87,600	2820 X $20.00 = 56,400
TSS	3640 X $10.00 = 36,400	4380 X $10.00 = 43,800	2820 X $10.00 = 28,200
F. COLI.	3120 X $20.00 = 62,400	9238 X $20.00 = 184,760	3443 X $20.00 = 68,860
OIL	0	4380 X $25.00 = 109,500	2820 X $25.00 = 70,500
NH_3	0	4380 X $15.00 = 65,700	1143 X $15.00 = 17,145
N	0	300 X $31.80 = 9,540	300 X $31.80 = 9,540
P	0	300 X $16.00 = 4,800	300 X $16.00 = 4,800
Collect (STP)	3640 X $13.97 = 50,850.80	4380 X $13.97 = 61,188.60	2820 X $13.97 = 39,395.40
Collect (River)	0	347 X $1110.20* = 385,239.40	127 X 1110.20* = 140,995.40
	$222,450.80, Say $225K	$952,128.00, Say $1 Million	$435,835.80, Say $450K
	($44,490.16/yr., Say $45K/yr.)	($190,425.60/yr., Say $200K/yr.)	($87,167.16/yr. Say $90K/yr.)
		444% of Present	200% of Present

*May be somewhat high
for MCB but did not include travel, per diem
and SIOH costs in total.

Encl (1)