# SECTION 2

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): LA0003301/WP1561

Form Approved. OMB No. 2040-0086. Approval expires 7-31-88

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

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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 | (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 | 3. UNITS (specify if blank) a. CONCENTRATION | b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand (BOD) | 1.8 | 40.5 | | | | | 1 | MG/L | LB | | | |
| b. Chemical Oxygen Demand (COD) | 12 | 270 | | | | | 1 | MG/L | LB | | | |
| c. Total Organic Carbon (TOC) | 7 | 158 | | | | | 1 | MG/L | LB | | | |
| d. Total Suspended Solids (TSS) | 14 | 315 | | | | | 1 | MG/L | LB | | | |
| e. Ammonia (as N) | * | | | | | | 1 | MG/L | LB | | | |
| f. Flow | VALUE 3.02 | | VALUE 2.82 | | VALUE 2.71 | | 365 | MGD | | 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 which is listed either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK a. | b. | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | | | | | | | | | |
| Net Dissolved Total Oxygen Demand | | | 13 | 288 | 1 | 28.9 | 0.3 | 6.2 | 365 | MG/L | LB | | | |

Historical data for Net Dissolved Total Oxygen Demand were obtained on grab samples as required by our present NPDES permit.



CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK X | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. BELIEVED PRESENT | b. 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 AVRG. VALUE | | b. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| g. Nitrogen, Total Organic (as N) | | X | | | | | | | | | | | | |
| h. Oil and Grease | | X | | | | | | | | | | | | |
| i. Phosphorus (as P), Total (7723 14 0) | | X | | | | | | | | | | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | X | | | | | | | | | | | | |
| (2) Beta, Total | | X | | | | | | | | | | | | |
| (3) Radium, Total | | X | | | | | | | | | | | | |
| (4) Radium 226, Total | | X | | | | | | | | | | | | |
| k. Sulfate (as $SO_4$) (14808 79 8) | | X | | | | | | | | | | | | |
| l. Sulfide (as S) | | X | | | | | | | | | | | | |
| m. Sulfite (as $SO_3$) (14265 45 3) | | X | | | | | | | | | | | | |
| n. Surfactants | | X | | | | | | | | | | | | |
| o. Aluminum, Total (7429 90 5) | | X | | | | | | | | | | | | |
| p. Barium, Total (7440 39 3) | | X | | | | | | | | | | | | |
| q. Boron, Total (7440 42 8) | | X | | | | | | | | | | | | |
| r. Cobalt, Total (7440 48 4) | | X | | | | | | | | | | | | |
| s. Iron, Total (7439 89 6) | X | | 0.48 | 10.8 | | | | | 1 | NC/L | LB | | | |
| t. Magnesium, Total (7439 95 4) | | X | | | | | | | | | | | | |
| u. Molybdenum, Total (7439 98 7) | | X | | | | | | | | | | | | |
| v. Manganese, Total (7439 96 5) | | X | | | | | | | | | | | | |
| w. Tin, Total (7440 31 5) | | X | | | | | | | | | | | | |
| x. [illegible] (7440 32 6) | | X | | | | | | | | | | | | |



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| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
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Approval expires 7-31-88

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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, nonprocess wastewater outfalls, and nonrequired 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 is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part, please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" a. Testing Required by Permit | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **METALS, CYANIDE, AND TOTAL PHENOLS** | | | | | | | | | | | | | | | |
| 1M Antimony, Total (7440-36-0) | | | X | | | | | | | | | | | | |
| 2M Arsenic, Total (7440-38-2) | | | X | | | | | | | | | | | | |
| 3M Beryllium, Total (7440-41-7) | | | X | | | | | | | | | | | | |
| 4M Cadmium, Total (7440-43-9) | | | X | | | | | | | | | | | | |
| 5M Chromium, Total (7440-47-3) | | | X | | | | | | | | | | | | |
| 6M Copper, Total (7440-50-8) | | | X | | | | | | | | | | | | |
| 7M Lead, Total (7439-92-1) | | | X | | | | | | | | | | | | |
| 8M Mercury, Total (7439-97-6) | | | X | | | | | | | | | | | | |
| 9M Nickel, Total (7440-02-0) | | | X | | | | | | | | | | | | |
| 10M Selenium, Total (7782-49-2) | | | X | | | | | | | | | | | | |
| 11M Silver, Total (7440-22-4) | | | X | | | | | | | | | | | | |
| 12M Thallium, Total (7440-28-0) | | | X | | | | | | | | | | | | |
| 13M Zinc, Total (7440-66-6) | | | X | | | | | | | | | | | | |
| 14M Cyanide, Total (57-12-5) | | | X | | | | | | | | | | | | |
| 15M Phenols, Total | | | X | | | | | | | | | | | | |
| **DIOXIN** | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (1746-01-6) | | | X | DESCRIBE RESULTS | | | | | | | | | | | |

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| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK X | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. Test Specified | b. Toxic Pollutant | c. Not Required | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. 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 – VOLATILE COMPOUNDS** | | | | | | | | | | | | | | | |
| 1V Acrolein (107 02 8) | | | X | | | | | | | | | | | | |
| 2V Acrylonitrile (107 13 1) | | | X | | | | | | | | | | | | |
| 3V. Benzene (71 43 2) | | | X | | | | | | | | | | | | |
| 4V. Bis (Chloromethyl) Ether (542 88 1) | | | X | | | | | | | | | | | | |
| 5V. Bromoform (75 25 2) | | | X | | | | | | | | | | | | |
| 6V Carbon Tetrachloride (56-23 5) | | | X | | | | | | | | | | | | |
| 7V. Chlorobenzene (108 90-7) | | | X | | | | | | | | | | | | |
| 8V. Chlorodi bromomethane (124 48 1) | | | X | | | | | | | | | | | | |
| 9V. Chloroethane (75 00 3) | | | X | | | | | | | | | | | | |
| 10V 2-Chloro-ethylvinyl Ether (110 75-8) | | | X | | | | | | | | | | | | |
| 11V Chloroform (67 66-3) | | | X | | | | | | | | | | | | |
| 12V Dichloro bromomethane (75 27-4) | | | X | | | | | | | | | | | | |
| 13V Dichloro difluoromethane (75-71-8) | | | X | | | | | | | | | | | | |
| 14V. 1,1 Dichloro ethane (75 34-3) | | | X | | | | | | | | | | | | |
| 15V 1,2-Dichloro-ethane (107-06 2) | | | X | | | | | | | | | | | | |
| 16V. 1,1-Dichloro-ethylene (75-35 4) | | | X | | | | | | | | | | | | |
| 17V. 1,2 Dichloro propane (78 87 5) | | | X | | | | | | | | | | | | |
| 18V 1,3 Dichloro-propylene (542-75 6) | | | X | | | | | | | | | | | | |
| 19V Ethylbenzene (100 41 4) | | | X | | | | | | | | | | | | |
| 20V Methyl Bromide (74 83 9) | | | X | | | | | | | | | | | | |
| 21V Methyl Chloride (74 87 3) | | | X | | | | | | | | | | | | |



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| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK X | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANALYSES | e. CONCENTRATION | f. MASS | a. LONG TERM AVRG. VALUE | | b. NO. OF ANALYSES |
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | c. LIMITED OR NO PRESENT | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | | | | (a) CONCENTRATION | (b) MASS | |
| **GC/MS FRACTION – VOLATILE COMPOUNDS** (continued) | | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75 09 2) | | | X | | | | | | | | | | | | |
| 23V. 1,1,2,2 Tetrachloroethane (79 34 5) | | | X | | | | | | | | | | | | |
| 24V. Tetrachloroethylene (127-18 4) | | | X | | | | | | | | | | | | |
| 25V. Toluene (108-88-3) | | | X | | | | | | | | | | | | |
| 26V. 1,2-Trans Dichloroethylene (156-60 5) | | | X | | | | | | | | | | | | |
| 27V. 1,1,1-Trichloroethane (71-55 6) | | | X | | | | | | | | | | | | |
| 28V. 1,1,2-Trichloroethane (79 00 5) | | | X | | | | | | | | | | | | |
| 29V. Trichloroethylene (79-01-6) | | | X | | | | | | | | | | | | |
| 30V. Trichlorofluoromethane (75 69-4) | | | X | | | | | | | | | | | | |
| 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 Dimethyl phenol (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 | | | | | | | | | | | | |

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| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK X | | | 3. EFFLUENT: MAXIMUM DAILY VALUE | | MAXIMUM 30 DAY VALUE (if available) | | LONG TERM AVRG. VALUE (if available) | | NO. OF ANALYSES | 4. UNITS: CONCENTRATION | MASS | 5. INTAKE (optional): LONG TERM AVERAGE VALUE | | NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. Believed Present | b. Believed Absent | c. Not Required | (a) Concentration | (b) Mass | (a) Concentration | (b) Mass | (a) Concentration | (b) Mass | | | | (a) Concentration | (b) Mass | |
| **GC/MS FRACTION** | **BASE/NEUTRAL COMPOUNDS** | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | | | X | | | | | | | | | | | | |
| 2B. Acenaphtylene (208-96-8) | | | X | | | | | | | | | | | | |
| 3B. Anthracene (120-12-7) | | | X | | | | | | | | | | | | |
| 4B. Benzidine (92-87-5) | | | X | | | | | | | | | | | | |
| 5B. Benzo (a) Anthracene (56-55-3) | | | X | | | | | | | | | | | | |
| 6B. Benzo (a) Pyrene (50-32-8) | | | X | | | | | | | | | | | | |
| 7B. 3,4-Benzo-fluoranthene (205-99-2) | | | X | | | | | | | | | | | | |
| 8B. Benzo (ghi) Perylene (191-24-2) | | | X | | | | | | | | | | | | |
| 9B. Benzo (k) Fluoranthene (207-08-9) | | | X | | | | | | | | | | | | |
| 10B. Bis (2-Chloro-ethoxy) Methane (111-91-1) | | | X | | | | | | | | | | | | |
| 11B. Bis (2-Chloro-ethyl) Ether (111-44-4) | | | X | | | | | | | | | | | | |
| 12B. Bis (2-Chloro-propyl) Ether (102-80-1) | | | X | | | | | | | | | | | | |
| 13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7) | | | X | | | | | | | | | | | | |
| 14B. 4-Bromo-phenyl Phenyl Ether (101-55-3) | | | X | | | | | | | | | | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | | | X | | | | | | | | | | | | |
| 16B. 2-Chloro-naphthalene (91-58-7) | | | X | | | | | | | | | | | | |
| 17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3) | | | X | | | | | | | | | | | | |
| 18B. Chrysene (218-01-9) | | | X | | | | | | | | | | | | |
| 19B. Dibenzo (a,h) Anthracene (53-70-3) | | | X | | | | | | | | | | | | |
| 20B. 1,2-Dichloro-benzene (95-50-1) | | | X | | | | | | | | | | | | |
| 21B. 1,3-Dichloro-benzene (541-[illegible] | | | X | | | | | | | | | | | | |



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

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| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. Believed Present | b. Believed Absent | c. Testing Required | 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 AVG VALUE (1) Concentration | (2) Mass | 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-Diphenylhydrazene (as Azobenzene) (122 66 7) | | | X | | | | | | | | | | | | |
| 31B. Fluoranthene (206 44 0) | | | X | | | | | | | | | | | | |
| 32B. Fluorene (86 73-7) | | | X | | | | | | | | | | | | |
| 33B. Hexachlorobenzene (118 74-1) | | | 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 | | | | | | | | | | | | |

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| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK X | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. REQUIRED BY CWA | b. REQUIRED BY TNRCC | c. REQUIRED BY EPA | 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 – BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 43B. N Nitro sodiphenylamine (86 30 6) | | | X | | | | | | | | | | | | |
| 44B. Phenanthrene (85-01-8) | | | X | | | | | | | | | | | | |
| 45B. Pyrene (129 00-0) | | | X | | | | | | | | | | | | |
| 46B. 1,2,4 - Tri-chlorobenzene (120 82-1) | | | X | | | | | | | | | | | | |
| **GC/MS FRACTION – PESTICIDES** | | | | | | | | | | | | | | | |
| 1P. Aldrin (309 00 2) | | | X | | | | | | | | | | | | |
| 2P. α BHC (319 84 6) | | | X | | | | | | | | | | | | |
| 3P β BHC (319 85-7) | | | X | | | | | | | | | | | | |
| 4P γ BHC (58 89 9) | | | X | | | | | | | | | | | | |
| 5P δ BHC (319 86 8) | | | X | | | | | | | | | | | | |
| 6P Chlordane (57 74-9) | | | X | | | | | | | | | | | | |
| 7P 4,4'-DDT (50 29 3) | | | X | | | | | | | | | | | | |
| 8P. 4,4' DDE (72 55 9) | | | X | | | | | | | | | | | | |
| 9P. 4,4'-DDD (72 54 8) | | | X | | | | | | | | | | | | |
| 10P. Dieldrin (60 57 1) | | | X | | | | | | | | | | | | |
| 11P α Endosulfan (115 29 7) | | | X | | | | | | | | | | | | |
| 12P. β Endosulfan (115 29 7) | | | X | | | | | | | | | | | | |
| 13P Endosulfan Sulfate (1031-07 8) | | | X | | | | | | | | | | | | |
| 14P. Endrin (72 20 8) | | | X | | | | | | | | | | | | |
| 15P Endrin Aldehyde (7421 93 4) | | | X | | | | | | | | | | | | |
| 16P Heptachlor (76 44 8) | | | X | | | | | | | | | | | | |

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy from Item 1 of Form 1): LA0003301/WP15

OUTFALL NUMBER: 211

Form Approved
OMB No. 2040-0
Approval expires 18

| 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 -- 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 | | | | | | | | | | | | |



* Not found at quantitation limits

** Not applicable, internal outfall

*** Not applicable, Division canal pH system

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 I of Form 1): LA0003301/WP1561

Form Approved OMB No. 2040-0086 Approval expires 7-31-88

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

OUTFALL NO. 231

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 | (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 | 3. UNITS (specify if blank) a. CONCENTRATION | b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | 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 0.8 | | VALUE 0.5 | | VALUE 0.1 | | 16 | MGD | | 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 | | | | |

Internal Outfall 231 does not flow in dry weather. No 2C testing can be done. Please refer to 2F data for Internal Outfall 231. Historical data listed below was obtained on grab samples as required by our present NPDES permit. The unanswered portions of this form are not applicable.

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 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. 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) PRESENT | (b) 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Bromide (24959-67-9) | | | | | | | | | | | | | | |
| b. Chlorine, Total Residual | | | | | | | | | | | | | | |
| c. Color | | | | | | | | | | | | | | |
| d. Fecal Coliform | | | | | | | | | | | | | | |
| e. Fluoride (16984-48-8) | | | | | | | | | | | | | | |
| f. Nitrate-Nitrite (as N) | | | | | | | | | | | | | | |
| Total | X | | 300 | 368 | 250 | 368 | 137 | 86.5 | 16 | MG/L | LB | | | |



CONTINUE ON REVERSE

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h. Oil and Grease | | | | | | | | | | | | | | | |
| i. Phosphorus (as P), Total (7723-14-0) | | | | | | | | | | | | | | | |
| j. Radioactivity | | | | | | | | | | | | | | | |
| (1) Alpha, Total | | | | | | | | | | | | | | | |
| (2) Beta Total | | | | | | | | | | | | | | | |
| (3) Radium, Total | | | | | | | | | | | | | | | |
| (4) Radium 226 Total | | | | | | | | | | | | | | | |
| k. Sulfate (as $SO_4$) (14808-79-8) | | | | | | | | | | | | | | | |
| l. Sulfide (as S) | | | | | | | | | | | | | | | |
| m. Sulfite (as $SO_3$) (14265-45-3) | | | | | | | | | | | | | | | |
| n. Surfactants | | | | | | | | | | | | | | | |
| o. Aluminum, Total (7429-90-5) | | | | | | | | | | | | | | | |
| p. Barium, Total (7440-39-3) | | | | | | | | | | | | | | | |
| q. Boron, Total (7440-42-8) | | | | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48-4) | | | | | | | | | | | | | | | |
| s. Iron, Total (7439-89-6) | | | | | | | | | | | | | | | |
| t. Magnesium, Total (7439-95-4) | | | | | | | | | | | | | | | |
| u. Molybdenum, Total (7439-98-7) | | | | | | | | | | | | | | | |
| v. Manganese, Total (7439-96-5) | | | | | | | | | | | | | | | |
| w. Tin, Total (7440-31-5) | | | | | | | | | | | | | | | |
| x. Titanium, Total (7440-32-6) | | | | | | | | | | | | | | | |



CONTINUE ON PAGE V-3

| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| LA0003301/WP1561 | 231 |

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE 3 OF FORM 2-C

**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, nonprocess wastewater outfalls, and nonrequired 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 is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part, please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **METALS, CYANIDE, AND TOTAL PHENOLS** | | | | | | | | | | | | | | | |
| 1M Antimony, Total (7440-36-0) | | | | | | | | | | | | | | | |
| 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 (7440-50-8) | | | | | | | | | | | | | | | |
| 7M Lead, Total (7439-92-1) | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | |
| **DIOXIN** 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (1746-01-6) | | | | DESCRIBE RESULTS | | | | | | | | | | | |

NTINUED FROM THE FRONT

| POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 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 AVRG. VALUE | | b. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| **C/MS FRACTION – VOLATILE COMPOUNDS** | | | | | | | | | | | | | | | |
| /. Acrolein 07 02 8) | | | | | | | | | | | | | | | |
| / Acrylonitrile -07 13 1) | | | | | | | | | | | | | | | |
| /. Benzene 1 43 2) | | | | | | | | | | | | | | | |
| / Bis (Chloro-thyl) Ether -42 88-1) | | | | | | | | | | | | | | | |
| / Bromoform 5-25-2) | | | | | | | | | | | | | | | |
| V. Carbon etrachloride -6 23-5) | | | | | | | | | | | | | | | |
| V. Chlorobenzene 08 90-7) | | | | | | | | | | | | | | | |
| V. Chlorodi -omomethane -24 48 1) | | | | | | | | | | | | | | | |
| V. Chloroethane 5 00 3) | | | | | | | | | | | | | | | |
| OV 2-Chloro-hylvinyl Ether 10-75-8) | | | | | | | | | | | | | | | |
| IV. Chloroform 7 66-3) | | | | | | | | | | | | | | | |
| 7V Dichloro omomethane 5-27 4) | | | | | | | | | | | | | | | |
| IV. Dichloro-fluoromethane 5 71 8) | | | | | | | | | | | | | | | |
| 4V. 1,1-Dichloro-hane (75-34 3) | | | | | | | | | | | | | | | |
| 5V. 1,2-Dichloro-hane (107-06-2) | | | | | | | | | | | | | | | |
| 6V. 1,1-Dichloro-hylene (75-35 4) | | | | | | | | | | | | | | | |
| 7V. 1,2 Dichloro opane (78-87 5) | | | | | | | | | | | | | | | |
| 8V 1,3-Dichloro-opylene (542 75-6) | | | | | | | | | | | | | | | |
| IV Ethylbenzene 00 41 4) | | | | | | | | | | | | | | | |
| -IV Methyl oride (74 83 9) | | | | | | | | | | | | | | | |
| IV Methyl oride (74 87 3) | | | | | | | | | | | | | | | |



NTINUE ON PAGE V 5

CONTINUED FROM PAGE V-4

LA0003301/WP1561 | 231

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 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 (if available) | | d. NO. OF ANALYSES |
| | | | | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | | | | (a) CONCENTRATION | (b) MASS | |
| **GC/MS FRACTION – VOLATILE COMPOUNDS** (continued) | | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75 09 2) | | | | | | | | | | | | | | | |
| 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) | | | | | | | | | | | | | | | |
| **GC/MS FRACTION – ACID COMPOUNDS** | | | | | | | | | | | | | | | |
| 1A 2 Chlorophenol (95 57 8) | | | | | | | | | | | | | | | |
| 2A. 2,4 Dichlorophenol (120 83 2) | | | | | | | | | | | | | | | |
| 3A 2,4-Dimethylphenol (105 67 9) | | | | | | | | | | | | | | | |
| 4A 4,6 Dinitro O-Cresol (534 52 1) | | | | | | | | | | | | | | | |
| 5A 2,4-Dinitrophenol (51 28 5) | | | | | | | | | | | | | | | |
| 6A. 2 Nitrophenol (88 75 5) | | | | | | | | | | | | | | | |
| 7A 4 Nitrophenol (100 02 7) | | | | | | | | | | | | | | | |
| 8A P Chloro M Cresol (59 50 7) | | | | | | | | | | | | | | | |
| 9A Pentachlorophenol (87 86 5) | | | | | | | | | | | | | | | |
| 10A Phenol (108 95 2) | | | | | | | | | | | | | | | |
| 11A 2,4,6 Trichlorophenol (88 06 2) | | | | | | | | | | | | | | | |

EPA Form 3510-2C (8-90)

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK X | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. BELIEVE PRESENT | b. BELIEVE ABSENT | c. BELIEVE PRESENT | 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 – BASE/NEUTRAL COMPOUNDS** | | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | | | | | | | | | | | | | | | |
| 2B. Acenaphtylene (208-96-8) | | | | | | | | | | | | | | | |
| 3B. Anthracene (120-12-7) | | | | | | | | | | | | | | | |
| 4B. Benzidine (92-87-5) | | | | | | | | | | | | | | | |
| 5B. Benzo (a) Anthracene (56-55-3) | | | | | | | | | | | | | | | |
| 6B. Benzo (a) Pyrene (50-32-8) | | | | | | | | | | | | | | | |
| 7B. 3,4-Benzo-fluoranthene (205-99-2) | | | | | | | | | | | | | | | |
| 8B. Benzo (ghi) Perylene (191-24-2) | | | | | | | | | | | | | | | |
| 9B. Benzo (k) Fluoranthene (207-08-9) | | | | | | | | | | | | | | | |
| 10B. Bis (2-Chloro-ethoxy) Methane (111-91-1) | | | | | | | | | | | | | | | |
| 11B. Bis (2-Chloro-ethyl) Ether (111-44-4) | | | | | | | | | | | | | | | |
| 12B. Bis (2-Chloro-propyl) Ether (102-80-1) | | | | | | | | | | | | | | | |
| 13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7) | | | | | | | | | | | | | | | |
| 14B. 4-Bromo-phenyl Phenyl Ether (101-55-3) | | | | | | | | | | | | | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | | | | | | | | | | | | | | | |
| 16B. 2-Chloro-naphthalene (91-58-7) | | | | | | | | | | | | | | | |
| 17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3) | | | | | | | | | | | | | | | |
| 18B. Chrysene (218-01-9) | | | | | | | | | | | | | | | |
| 19B. Dibenzo (a,h) Anthracene (53-70-3) | | | | | | | | | | | | | | | |
| 20B. 1,2-Dichloro-benzene (95-50-1) | | | | | | | | | | | | | | | |
| 21B. 1,3-Dichlo-benzene (541-73-1) | | | | | | | | | | | | | | | |

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1) LA0003301/WP156 OUTFALL NUMBER 231

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

CONTINUED FROM THE FRONT

| 1 POLLUTANT AND CAS NUMBER (if available) | 2 MARK X | | | 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 – BASE/NEUTRAL COMPOUNDS** (continued) | | | | | | | | | | | | | | | |
| 43B. N Nitrosodiphenylamine (86-30-6) | | | | | | | | | | | | | | | |
| 44B. Phenanthrene (85-01-8) | | | | | | | | | | | | | | | |
| 45B. Pyrene (129-00-0) | | | | | | | | | | | | | | | |
| 46B. 1,2,4-Trichlorobenzene (120 82-1) | | | | | | | | | | | | | | | |
| **GC/MS FRACTION – PESTICIDES** | | | | | | | | | | | | | | | |
| 1P. Aldrin (309 00 2) | | | | | | | | | | | | | | | |
| 2P. α-BHC (319 84-6) | | | | | | | | | | | | | | | |
| 3P. β BHC (319 85-7) | | | | | | | | | | | | | | | |
| 4P γ BHC (58 89 9) | | | | | | | | | | | | | | | |
| 5P. δ-BHC (319 86 8) | | | | | | | | | | | | | | | |
| 6P Chlordane (57 74 9) | | | | | | | | | | | | | | | |
| 7P 4,4' DDT (50 29 3) | | | | | | | | | | | | | | | |
| 8P. 4,4' DDE (72 55 9) | | | | | | | | | | | | | | | |
| 9P 4,4' DDD (72-54 8) | | | | | | | | | | | | | | | |
| 10P. Dieldrin (60 57 1) | | | | | | | | | | | | | | | |
| 11P. α Endosulfan (115 29 7) | | | | | | | | | | | | | | | |
| 12P. β Endosulfan (115 29-7) | | | | | | | | | | | | | | | |
| 13P Endosulfan Sulfate (1031-07 8) | | | | | | | | | | | | | | | |
| 14P Endrin (72 20 8) | | | | | | | | | | | | | | | |
| 15P Endrin Aldehyde (7421-93-4) | | | | | | | | | | | | | | | |
| 16P Heptachlor (76-44-8) | | | | | | | | | | | | | | | |

CONTINUED F PAGE V-B

EPA I.D. NUMBER (copy from Item 1 on the 1st page of this form) LA0003301/WP1561 OUTFALL NUMBER 231

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | | 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 – PESTICIDES** (continued) | | | | | | | | | | | | | | | |
| 17P Heptachlor Epoxide (1024 57 3) | | | | | | | | | | | | | | | |
| 18P PCB 1242 (53469 21 9) | | | | | | | | | | | | | | | |
| 19P PCB 1254 (11097 69 1) | | | | | | | | | | | | | | | |
| 20P PCB 1221 (11104 28-2) | | | | | | | | | | | | | | | |
| 21P PCB 1232 (11141 16 5) | | | | | | | | | | | | | | | |
| 22P PCB-1248 (12672-29 6) | | | | | | | | | | | | | | | |
| 23P PCB-1260 (11096 82 5) | | | | | | | | | | | | | | | |
| 24P PCB 1016 (12674-11 2) | | | | | | | | | | | | | | | |
| 25P Toxaphene (8001 35 2) | | | | | | | | | | | | | | | |



** Not applicable, internal outfall

*** Not applicable, Division canal pH system

OUTFALL: Internal Outfall 231

EPA ID Number (copy from item 1 of Form 1): LA0003301/WP1561

Form Approved OMB No. 2040-0086
Approval expires 5-31-92

## VII. Discharge Information *(Continued from page 3 of Form 2F)*

**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.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| Oil and Grease | | | | | | |
| Biological Oxygen Demand (BOD5) | No representative sample has been caught. | | | | | |
| Chemical Oxygen Demand (COD) | A completed Part VII of Form 2F for Internal | | | | | |
| Total Suspended Solids (TSS) | Outfall 231 will be submitted when the outfall | | | | | |
| Total Kjeldahl Nitrogen | flows. All unanswered portions of this form | | | | | |
| Nitrate plus Nitrite Nitrogen | are not applicable. | | | | | |
| Total Phosphorus | | | | | | |
| pH | Minimum | Maximum | Minimum | Maximum | | |

**Part B** - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

**Part C** - List each pollutant shown in Tables 2F-[illegible] and 2F-[illegible] that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

**Part D** - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

| 1. Date of Storm Event | 2. Duration of Storm (in minutes) | 3. Total rainfall during storm event (in inches) | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event (gallons/minute or specify units) | 6. Total flow from rain event (gallons or specify units) | 7. Season sample was taken | 8. Form of Precipitation (rainfall, snowmelt) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

9. Provide a description of the method of flow measurement or estimate.

| EPA ID Number | STATE PERMIT NUMBER | OUTFALL: INTERNAL OUTFALL 231 |
|---|---|---|
| LA-0003301 | WP1561 | |

PART VII - B. Pollutants listed under existing NPDES permit.

| Pollutant and CAS Number (if available) | Maximum Values | | Average Values | | Number of Storm Events Sampled | Source of Pollutants |
|---|---|---|---|---|---|---|
| | Grab sample First 30 minutes | Flow- weighted Composite | Grab sample First 30 minutes | Flow- weighted Composite | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Total Oxygen | 300 mg/l | | 137 mg/l | | | |
| Demand (TOD) | 368.4# | | 86.5# | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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# POUNDS

| EPA ID Number | STATE PERMIT NUMBER | OUTFALL: INTERNAL OUTFALL 231 |
|---|---|---|
| LA-0003301 | WP1561 | |

Part VII : B. Provide data for storm events which resulted in maximum values for the flow weighted composite sample.

| Date of Storm Event | Duration of Storm (in minutes) | Total rainfall during storm event (in inches) | Number of hours between beginning of storm measured and end of previous measurable rain event | Maximum flow rate during rain event (gallons/minute or specify units ) | Total flow from rain event (gallons or specify units) | Season sample was taken | Form of precipitation (rainfall snowmelt) |
|---|---|---|---|---|---|---|---|
| N/A | | | | | | | |

9. Provide a description of the method of flow measurement or estimate

N/A

**ALL DATA IN PART B IS BASED ON HISTORICAL GRAB DATA COLLECTED FOR OUR CURRENT NPDES PERMIT. ALL FLOW DATA IS BASED ON A DIFFERENT FLOW ESTIMATE.**

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

## METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | QUANTITATION LIMIT (MG/L) | METHOD |
|---|---|---|
| CYANIDE | 0.01 | 412 B&D |
| BOD | 1 | 507 |
| COD | 10 | 508A |
| BORON | 0.1 | 404A |
| TOTAL KJELDAHL N2 | 1 | 420A, 417D |
| COLOR (TRUE/APPARENT) | 15 APHA | 204A |
| FOAMING AGENTS | 0.1 | 512B |
| ORGANIC NITROGEN | 1 | 420A, 417A &D |
| PHENOLS | 0.002 | 510A&B |
| FECAL COLIFORM | 1 COL/100ML | 909C |
| SULFITE (TITRIMETRIC) | 2 | 377.1 |
| ALUMINUM | 0.2 | 202.1 |
| ANTIMONY | 0.1 | 204.1 |
| ARSENIC | 0.01 | 206.2 |
| BARIUM | 0.1 | 208.1 |
| BERYLLIUM | 0.005 | 210.2 |
| CADMIUM | 0.01 | 213.2 |
| CHROMIUM | 0.01 | 218.2 |
| COBALT | 0.05 | 219.1 |
| COPPER | 0.005 | 220.2 |
| IRON | 0.03 | 236.1 |
| LEAD | 0.005 | 239.2 |
| MAGNESIUM | 0.01 | 242.1 |
| MANAGANESE | 0.01 | 243.1 |
| MERCURY | 0.0002 | 245.1 |
| MOLYBDENUM | 0.03 | 246.1 |
| NICKEL | 0.05 | 249.1 |
| SELENIUM | 0.01 | 270.2 |
| SILVER | 0.005 | 272.2 |
| THALLIUM | 0.1 | 279.2 |
| TIN | 1 | 282.1 |
| TITANUIM | 0.3 | 283.1 |
| ZINC | 0.01 | 289.1 |
| TOTAL PHOSPHORUS | 0.1 | 424C&F |
| NO2/NO3 | 0.05 | 418C |
| BROMIDE | 2 | 320.1 |
| SULFATE (TURBIDIMETRIC) | 5 | 426C |
| OIL & GREASE | 1 | 413.1 |
| RESIDUAL CHLORINE | 0.05 | ORION |
| TOTAL OXYGEN DEMAND | 10 | ASTM 3250-77 |
| TOTAL SUSPENDED SOLIDS | 1 | 160.2 |
| TOTAL ORGANIC CARBON | 2 | 415.1 |
| VOLATILE ORGANICS | 0.01 | 601, 602, 624 |
| BASE NEUTRALS | 0.01 | 625 |
| ACID PHENOLS | 0.01 | 625 |

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | LIMIT (MG/L) | METHOD |
|---|---|---|
| PESTICIDES | 0.01 | 625 |
| AMMONIA | 0.01 | 350.3 |
| SULFIDE | 0.01 | 376.1 |
| pH | 0-14 SU | 150.1 |
| TEMPERATURE | .5°C | 170.1 |
| FLUORIDES | 0.2 | 413B |

| | PCI/L | METHOD |
|---|---|---|
| RADILOGICALS | | |
| GROSS ALPHA | 0.1 | 703 |
| GROSS BETA | 0.10 | 703 |
| RADIUM (226) | 0.10 | 705 |
| RADIUM (228) | 0.10 | 706 |
| TOTAL RADIUM | 0.10 | 705 |

For any test value below the quantitation limit, a zero was used for any required calculation.

OUTFALL: Internal Outfall 241

EPA ID Number (copy from item 1 of Form 1)
LA0003301/WP1561

Form Approved OMB No 2040-0086
Approval expires 5-31-92

## VII. Discharge Information *(Continued from page 3 of Form 2F)*

**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.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| Oil and Grease | Please refer to Internal Outfall 231 for 2F testing | | | | | |
| Biological Oxygen Demand (BOD5) | results. Internal Outfalls 231 and 241 are similar | | | | | |
| Chemical Oxygen Demand (COD) | outfalls at the Cellulose Plant. Internal Outfall | | | | | |
| Total Suspended Solids (TSS) | 241 is a newly defined outfall. All unanswered | | | | | |
| Total Kjeldahl Nitrogen | portions of this form are not applicable. | | | | | |
| Nitrate plus Nitrite Nitrogen | | | | | | |
| Total Phosphorus | | | | | | |

**Part B** - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample

| 1. Date of Storm Event | 2. Duration of Storm (in minutes) | 3. Total rainfall during storm event (in inches) | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event (gallons/minute or specify units) | 6. Total flow from rain event (gallons or specify units) | 7. Season sample was taken | 8. Form of Precipitation (rainfall, snowmelt) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

9. Provide a description of the method of flow measurement or estimate.

OUTFALL: Internal Outfall 251

EPA ID Number (copy from item 1 of Form 1)
LA0003301/WP1561

Form Approved OMB No 2040-0086
Approval expires 5-31-92

## VII. Discharge Information *(Continued from page 3 of Form 2F)*

**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.

| Pollutants and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| Oil and Grease | | | | | | |
| Biological Oxygen Demand (BOD5) | Please refer to Internal Outfall 231 for 2F testing | | | | | |
| Chemical Oxygen Demand (COD) | results. Internal Outfalls 231 and 251 are similar | | | | | |
| Total Suspended Solids (TSS) | outfalls at the Cellulose Plant. Internal Outfall | | | | | |
| Total Kjeldahl Nitrogen | 251 is a newly defined outfall. All unanswered | | | | | |
| Nitrate plus Nitrite Nitrogen | portions of this form are not applicable. | | | | | |
| Total Phosphorus | | | | | | |
| [illegible] | Minimum | Maximum | Minimum | Maximum | | |

**Part B** - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

| Pollutants and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample

| 1. Date of Storm Event | 2. Duration of Storm (in minutes) | 3. Total rainfall during storm event (in inches) | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event (gallons/minute or specify units) | 6. Total flow from rain event (gallons or specify units) | 7. Season sample was taken | 8. Form of Precipitation (rainfall, snowmelt) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

9. Provide a description of the method of flow measurement or estimate.

EPA I.D. NUMBER (Copy from Item 1 of Form 1) LA0003301/WP1561

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 | B. LATITUDE | | | C. LONGITUDE | | | D. RECEIVING WATER (name) |
|---|---|---|---|---|---|---|---|
| | DEG | MIN | SEC | DEG | MIN | SEC | |
| 310 | 30 | 19 | 0 | 91 | 14 | 15 | Mississippi River |
| 311 | 30 | 19 | 0 | 91 | 14 | 15 | Mississippi River |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| T Internal Outfall | | | | | | | |

## 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 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 wastes, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Attach 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 | |
| 310 | Car Wash Water | 0.150 | Discharged to Surface | 4A | |
| | Storm Water | 0.003372 | Discharged to Surface | 4A | |
| | Newly defined storm water internal outfall. Flow estimated based on | | | | |
| | 30 day month high rain | | | | |
| 311 | Process Waste Water | 1.413 | Neutralization/Dechlorination | 2K | 2E |
| | Pump Seal Purge | 0.4816 | Discharged to Surface | 4A | |
| | Condensate | 0.6435 | Discharged to Surface | 4A | |
| | Maintenance Water | 0.4509 | Discharged to Surface | 4A | |
| | Cooling Tower Blowdown | 0.5156 | Discharged to Surface | 4A | |
| | Boiler Blowdown | 0.0852 | Discharged to Surface | 4A | |
| | Sink Water | 0.017 | Discharged to Surface | 4A | |
| | Storm Water | 0.429 | Discharged to Surface | 4A | |
| 311 | Once Through Cooling | 0.09413 | Discharged to Surface | 4A | |
| | | | | | |
| | | | | | |
| | See Attachment | 1 for future projects affecting internal | | | |
| | outfalls at CA | II. | | | |
| | | | | | |
| | See Attachment | 2 for Treatment | Unit Description | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

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

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ YES (complete the following table) ☐ NO (go to Section III)

| 1. OUTFALL NUMBER (list) | 2. OPERATION(s) CONTRIBUTING FLOW (list) | 3. FREQUENCY a. DAYS PER WEEK (specify average) | 3. FREQUENCY b. MONTHS PER YEAR (specify average) | 4. FLOW a. FLOW RATE (in mgd) 1. LONG TERM AVERAGE | 4. FLOW a. FLOW RATE (in mgd) 2. MAXIMUM DAILY | 4. FLOW b. TOTAL VOLUME (specify with units) 1. LONG TERM AVERAGE | 4. FLOW b. TOTAL VOLUME (specify with units) 2. MAXIMUM DAILY | [illegible] |
|---|---|---|---|---|---|---|---|---|
| 311 | Condensate | 4 | 12 | 0.502 | 0.502 | 104.4 | 104.4 | 208 |

## III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B) ☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☒ YES (complete Item III-C) ☐ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| 1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. (specify) | 2. AFFECTED OUTFALLS (list outfall numbers) |
|---|---|---|---|
| DOW CONFIDENTIAL BUSINESS INFORMATION 40 CFR 2.201-2.215 | | See Production numbers under separate cover sheet. | 311 |

## IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? These include, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table) ☒ NO (go to Item IV-B)

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS a. no. | 2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE a. REQUIRED | 4. FINAL COMPLIANCE DATE b. PROJECTED |
|---|---|---|---|---|---|
| | | | | | |

B. OPTIONAL. You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate planned schedules for construction. ☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUED FROM PAGE 2

EPA I.D. NUMBER (copy from item 1 of Form 1) LA 00033011 WP 1561

## 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-2 of the instructions that you know or have reason to believe will be discharged from any outfall. For every pollutant you list, briefly describe the reason it is to be present and how it came into your possession.

| 1. POLLUTANT | 2. SOURCE | POLLUTANT | |
|---|---|---|---|
| Acetaldehyde | By product acid from Vinyl II used for pH treatment | Phosgene | Has been present in Chlorine gas |
| Asbestos | Component of Chlorine Cell diaphram & gasket material | Strontium | Present in Raw Brine |

## VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

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

Attachment 3

CONTINUED FROM THE FRONT

## VII BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

X YES (list the tests and describe their purposes below) ___ NO (go to Section VIII)

Attachment 4

## VIII CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

X YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below) ___ NO (go to Section IX)

| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS ANALYZED |
|---|---|---|---|
| Attachment 5 | | | |

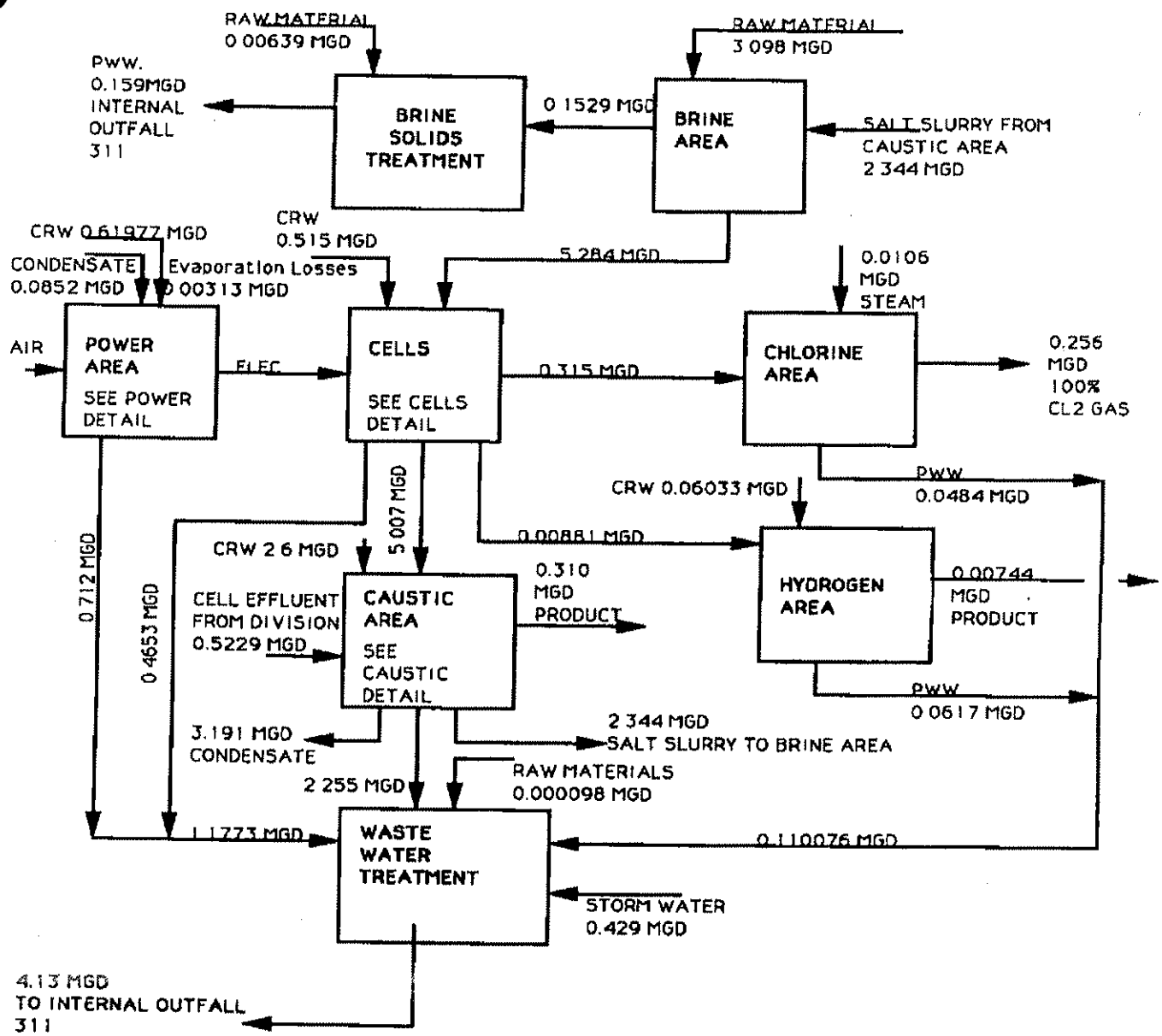
## IX CERTIFICATION

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

| A. NAME & OFFICIAL TITLE (type or print) | B. PHONE NO. (area code & no.) |
|---|---|
| L.D. Adcock, General Manager | (504) 389-8222 |
| **C. SIGNATURE** | **D. DATE SIGNED** |
| L.D. Adcock | 10/30/91 |

# CHLOR-ALKALI II

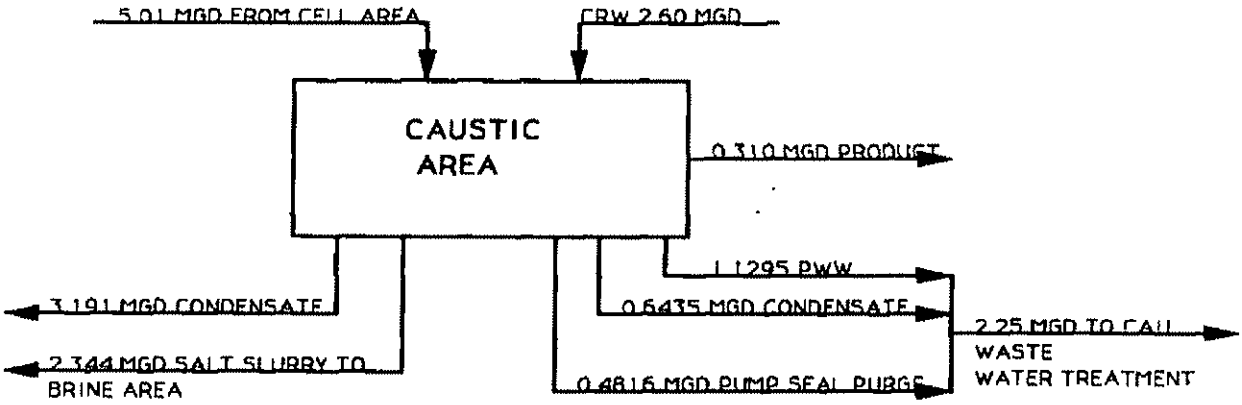
NPDES LA 0003301/LWDPS WP 1561
ITEM IIA
CDB 9/18/91




*PWW=PROCESS
WASTE WATER
* CRW=
CLARIFIED
RIVER WATER

# CHLOR-ALKALI II

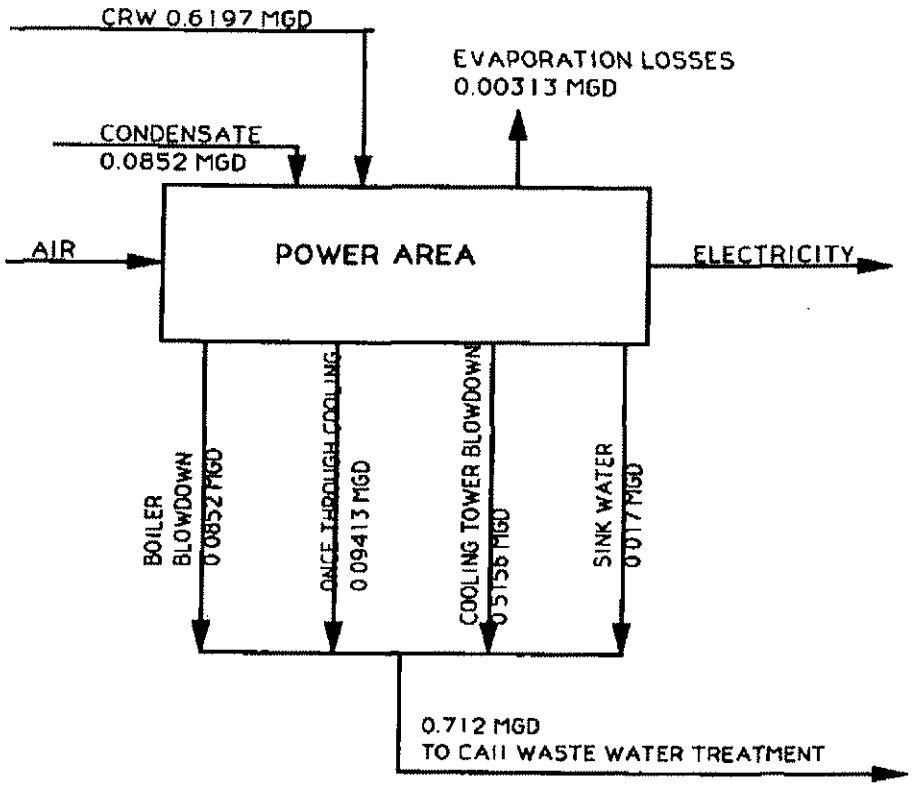
NPDES LA 0003301/LWDPS WP 1561
ITEM IIA ( CAUSTIC AREA DETAIL)
CDB 9/17/91




*CRW = CLARIFIED RIVER WATER

*PWW = PROCESS WASTE WATER

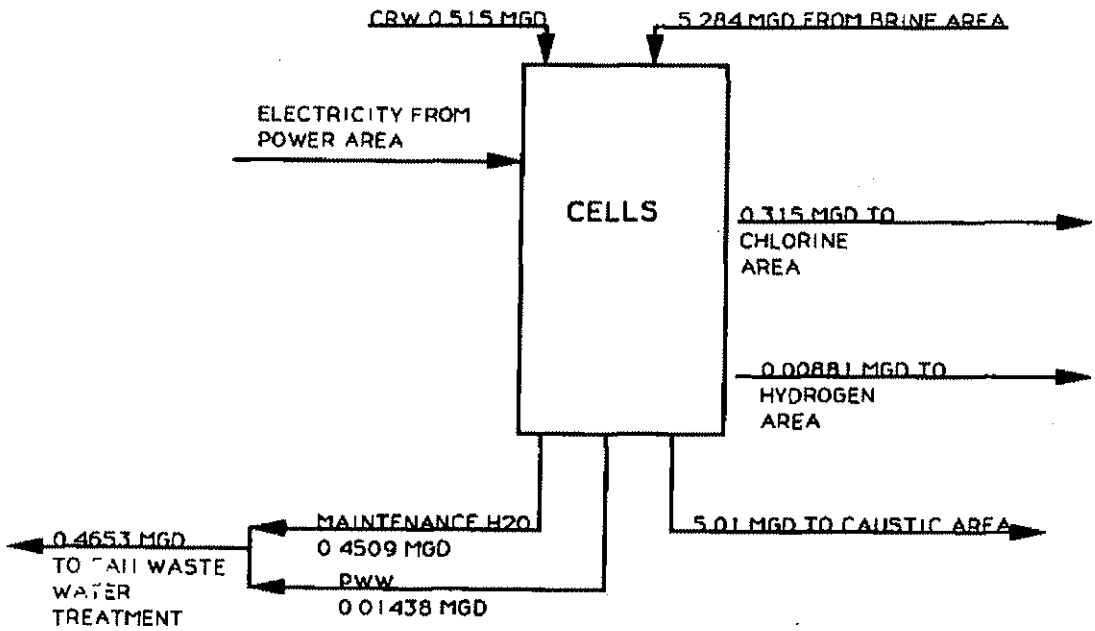
CHLOR-ALKALI II
NPDES LA 0003301/LWDPS WP 1561
ITEM IIA (POWER AREA DETAIL)
CDB 9/17/91




*CRW = CLARIFIED RIVER WATER

*PWW = PROCESS WASTE WATER

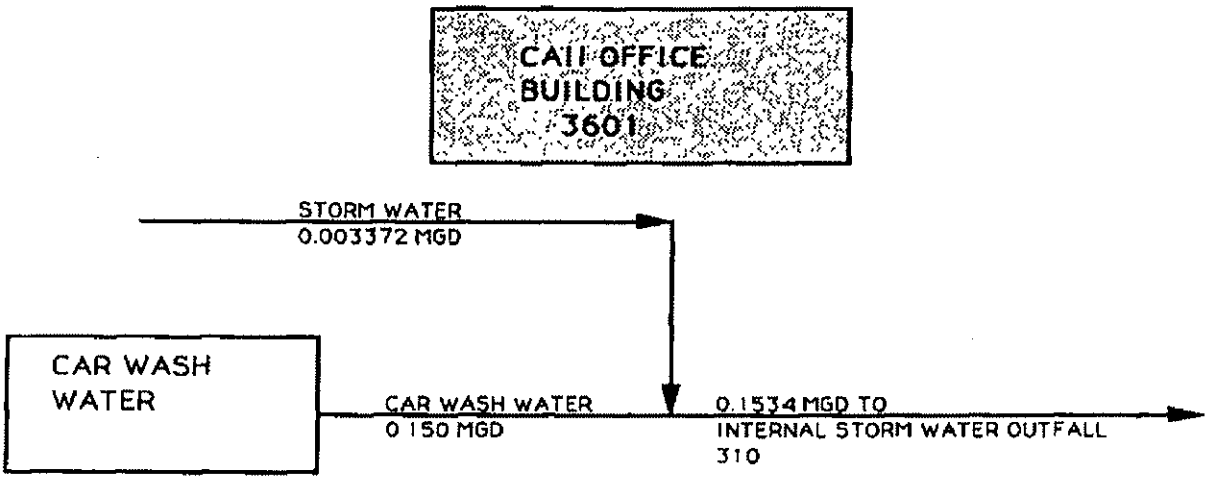
# CHLOR-ALKALI II
NPDES LA 0003301/LWDPS WP 1561
ITEM IIA (CELL AREA DETAIL)
CDB 9/17/91




* CRW= CLARIFIED RIVER WATER

*PWW=PROCESS WASTE WATER

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS WP 1561
ITEM IIA
CDB 9/17/91



CHLOR-ALKALI II
PROJECTS THAT WILL AFFECT INTERNAL OUTFALL 311
NPDES LA0003301/LWDPS WP1561
FORM 2C, ATTACHMENT 1
cdb 9/17/91

**PROJECT TITLE:** pH Treatment (Vinyl II Oxy Acid)

**Scope:** Vinyl II by-product Oxy Acid will be used to pH treat internal outfall 311. By-product acid contains trace amounts of Acetaldehyde, Ethanol, ChloroAcetaldehyde, Acetic Acid, 1,2 - DiChloroEthane, Ethylene Chlorohydrin, Chloral, Glycol, and Formic Acid, Copper

**Projected Completion Date:** 1992

CHLOR-ALKALI II
TREATMENT UNIT DESCRIPTION
NPDES LA0003301/LWDPS WP 1561
FORM 2C/ITEM IIB, ATTACHMENT 2
cdb 9/17/91

1. Total Suspended Solids Unit

   Size: 20,000 gallon
   Retention Time/Thruput: 50 gallon/minute

2. Waste Pond

   Size: 300,000 gallon
   Retention Time/Thruput: 2000 gallon/minute

3. Sump 12 (Final 311 Outfall Collection Sump)

   Size: 7500 gallons
   Retention Time/Thruput: 3000 gallon/minute

**Ultimate disposal of all waste generated is as follows:

Solid Waste - Dow's permitted solid waste landfill
Hazardous Waste - Dow's permitted Rotary Kiln
Ash from Incineration - Dow's permitted Hazardous Waste Landfill

CHLOR-ALKALI II
NPDES LA0003301/LWDPS WP 1561
FORM 2C/ITEM VI, ATTACHMENT 3
cdb 9/17/91

## POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

| CHEMICAL | USE |
|---|---|
| Copper | Material of Construction |
| *Lead | By-product |
| Nickel | Material of Construction |
| Bromoform | By-product |
| Chloroform | By-product |
| Hexachlorobenzene | By-product |
| Hexachlorobutadiene | By-product |
| Hexachloroethane | By-product |
| 1,1 - Dichloroethane | By-product |
| 1,2 - Dichloroethane | By-product |
| Carbon Tetrachloride | By-product, use |
| 1,1,1 - Trichloroethane | By-product |
| Methyl Chloride | By-product |
| Trichloroethylene | By-product |
| 1,1,2,2 Tetrachloroethane | By-product |
| Tetrachloroethylene | By-product |
| Dichloromethane | By-product |
| Dichloroethane | By-product |
| Chlorodibromomethane | By-product |
| Chromium | By-product |
| Zinc | Material of Construction, by-product |
| Dicholorobromomethane | By-product |
| Chlorodifluromethane | By-product, use |
| Sodium Bisulfite | Product |

*Not seen in past year.

CA II PLANT
NPDES LA 0003301/LWDPS WP 1561
FORM 2C/ITEM VII, ATTACHMENT 4

## VII. BIOLOGICAL TOXICITY TESTING DATA

No biological toxicity testing has been performed on internal outfall 310. Quarterly acute biomonitoring was done for a 2-year period on internal outfall 311 in accordance with Part III item 6 and 12) of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP 1561. Internal outfall 311 is discharged to the Louisiana Division canal. The organism used for the testing was Mysidopsis sp. Results for the acute biomonitoring were reported on a quarterly basis from 1987 until early 1989.

Quarterly acute biomonitoring was done for a 2-year period on final outfall 001 in accordance with Part III.6 of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP 1561. The receiving stream for final outfall 001 is the Mississippi River. The organism used for the testing was Daphnia sp. Results for the acute biomonitoring were reported on a quarterly basis from 1987 until early 1989.

Chronic testing was done on final outfall 001 in January and February 1990. The receiving stream for final outfall 001 is the Mississippi River. The organisms used were Ceriodaphnis dubia and Pimephales promelas. Results have been reported to the state.

9-91/lww

CA II PLANT
NPDES LA 0003301/LWPDS WP 1561
FORM 2C/ITEM VII, ATTACHMENT 5

VIII. CONTRACT ANALYSIS INFORMATION

A, B, C. NAME, ADDRESS, TELEPHONE

West Paine Laboratories, Inc., 7979 GSRI Avenue, Baton Rouge, LA 70820 (504) 769-4900

D. POLLUTANTS ANALYSIS

BOD, COD, total phenols, total cyanide, sulfates, sulfite, total phosphorous, total kjedahl nitrogen, fecal coliform, fluoride, total organic nitrogen as N, surfactants, total radium, total radium 226, total aluminum, total barium, total boron, total cobalt, total iron, total magnesium, total molybdenum, total manganese, total tin, total titanium, total antimony, total arsenic, total beryllium, total chromium, total copper, total lead, total mercury, total nickel, total selenium, total silver, total thallium, total zinc, color.

A, B, D. NAME, ADDRESS, TELEPHONE

No longer in existence.
Gulf Engineering and Consultants, 535 Main Street, Baton Rouge, LA 70802.

D. POLLUTANTS ANALYSIS

Acute biomonitoring

A, B, C. NAME, ADDRESS, TELEPHONE

Analytical and Environmental Testing, 1717 Seabord Drive, Suite101, Baton Rouge, LA 70810 (504) 769-1930

D. POLLUTANTS ANALYZED

Chronic biomonitoring
9-91/lww

Please print or type in the unshaded areas only

EPA ID Number (copy from item I of Form 1) LA 0003301 / WP 1561

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

Form 2F NPDES

EPA

United States Environmental Protection Agency
Washington, DC 20460

# Application for Permit To Discharge Stormwater Discharges Associated with Industrial Activity

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503

## 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 1 (list) | B. Latitude | | | C. Longitude | | | D. Receiving Water (name) |
|---|---|---|---|---|---|---|---|
| 310 | 30 | 19 | 0 | 91 | 14 | 15 | Mississippi River |
| 311 | 30 | 19 | 0 | 91 | 14 | 15 | Mississippi River |
| | | | | | | | |
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| | | | | | | | |
| 1 Internal Outfalls | | | | | | | |

## II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

| 1. Identification of Conditions, Agreements, Etc. | 2. Affected Outfalls: number | 2. Affected Outfalls: source of discharge | 3. Brief Description of Project | 4. Final Compliance Date: a. req. | 4. Final Compliance Date: b. prop. |
|---|---|---|---|---|---|
| N/A | | | | | |
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B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction. See Attachment A for future projects at LA 11 affecting internal outfalls

## III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

 Continue on Page 2

[redacted]

EPA ID Number (copy from Item I of Form 1)
LA 0003301 WP 1561

Continued from Page 2

## VII. Discharge Information

A,B C, & D See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E Potential discharges not covered by analysis - Is any pollutant listed in Table 2F-2 a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

XX Yes (list all such pollutants below) ___ No (go to Section VIII)

See Attachment E

## VIII. Biological Toxicity Testing Data

XX Yes (list below) ___ No (go to Section IX)

See Attachment F

## IX. Contract Analysis Information

XX Yes ___ No (go to Section X)

| A. Name | B. Address | C. Area Code & Phone No. | D. Pollutants Analyzed |
|---|---|---|---|
| See Attachment G | | | |

## X. Certification

| A. Name & Official Title (type or print) | B. Area Code and Phone No. |
|---|---|
| L. D. Adcock<br>General Manager | (504) 389-8222 |
| C. Signature | D. Date Signed |

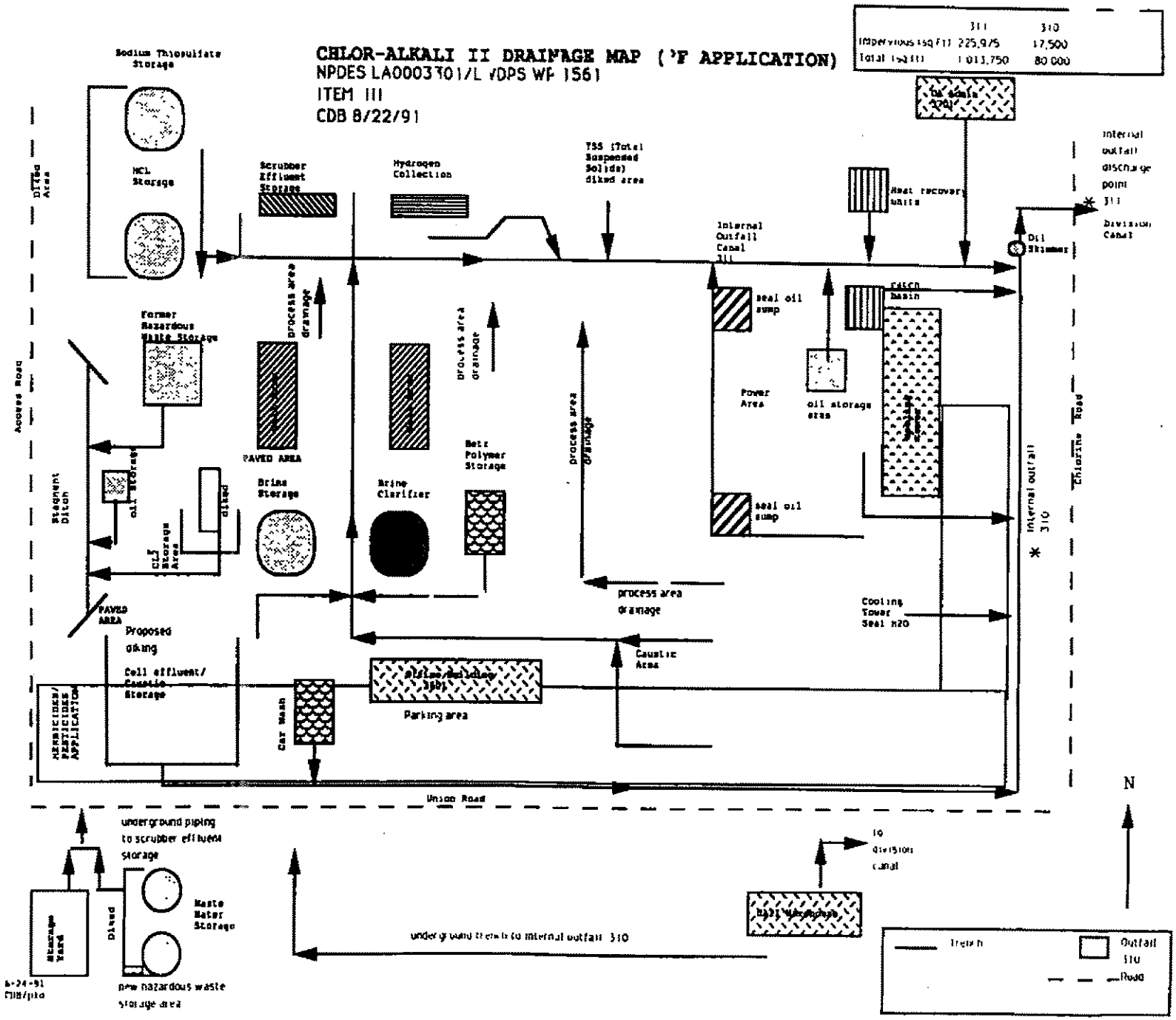
# CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

L. D. Adcock, General Manager
504/389-8222

Date 10/30/91

Form 2F


CHLOR-ALKALI II DRAINAGE MAP ('F APPLICATION)
NPDES LA0003701/L WDPS WP 1561
ITEM III
CDB 8/22/91
311 310
Impervious sq ft 225,975 17,500
Total sq ft 1,013,750 80,000
Sodium Thiosulfate Storage
HCL Storage
Scrubber Effluent Storage
Hydrogen Collection
TSS (Total Suspended Solids) diked area
Heat recovery units
Internal Outfall Canal 311
Internal outfall discharge point 311
Division Canal
Oil Skimmer
Former Hazardous Waste Storage
process area drainage
seal oil sump
Catch basin
Power Area
oil storage area
Access Road
Stagnant Ditch
oil storage
diked
PAVED AREA
Brine Storage
Brine Clarifier
Betz Polymer Storage
Chlorine Road
Internal outfall 310
Cooling Tower Seal H2O
Proposed diking
Cell effluent/ Caustic Storage
Caustic Area
Car Wash
Parking area
HERBICIDES/ PESTICIDES APPLICATION
Union Road
N
underground piping to scrubber effluent storage
Waste Water Storage
new hazardous waste storage area
underground trench to internal outfall 310
to division canal
Trench
Outfall 310
Road
6-24-91 CDB/pto

CHLOR-ALKALI II PLANT
PROJECTS THAT WILL AFFECT INTERNAL OUTFALL 311
NPDES LA 0003301/LWDPS WP 1561
FORM 2F ATTACHMENT A
CDB 9/17/91

**PROJECT TITLE:** pH Treatment (Vinyl II Oxy Acid)

**Scope:** Vinyl II by-product Oxy Acid will be used to pH treat internal outfall 311. By-product acid contains trace amounts of Acetaldehyde, Ethanol, ChloroAcetaldehyde, Acetic Acid, 1,2- DiChloroEthane, Ethylene Chlorohydrin, Chloral, Glycol, and Formic Acid, Copper.

**Expected Completion Date:** 1992

CHLOR-ALKALI II
NPDES LA0003301/LWDPS WP 1561
FORM 2F ATTACHMENT B1
CDB 9/25/91

## SIGNIFICANT MATERIALS

Item IVB of the 1992 Form 2F states "Significant Materials include but are not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Cercla; any chemical reported under SARA 313; fertilizers; pesticides; and waste products such as ashes, slag, and sludge to have the potential to be released with stormwater discharges."

Key Best Management Practices (BMP) for all of the Significant Materials that are stored, loaded, and transferred are listed below. Also see "Structural" and "Nonstructural Controls" for additional BMP for Significant Materials

Management Practices Key:

1. SPC (Spill Prevention Control)
2. SPCC (Spill Prevention Control and Countermeasure)
3. Diking
4. Written Procedures
5. Excavation & Treatment of Contaminated Soil
6. Roofing
7. Equipment Isolation Test

CHLOR-ALKALI II
NPDES LA0003301/LWDPS WP1561
FORM 2F/ITEM IVB
ATTACHMENT B2
CDB 9/25/91

## SIGNIFICANT MATERIALS SUMMARY

### CHEMICAL

| | |
|---|---|
| A | Asbestos |
| B | Betz Flocculant |
| C | Brine |
| D | Carbon Dioxide |
| E | Carbon Tetrachloride |
| F | Chlorinated Organics |
| G | Freon |
| H | Hydrochloric Acid |
| I | Lithium Bromide |
| J | Lube Oil |
| K | Sodium Carbonate |
| L | Sodium Hydroxide |
| M | Sodium Thiosulfate |
| N | Sulfuric Acid (98%) |
| O | Sulfuric Acid (95%) |
| P | Sulfuric Acid (65%) |
| Q | Transformer Oil |
| R | 1,1,1 - Trichloroethane |

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS SP 1561
FORM 2F/ITEM IVB
ATTACHMENT B2
cdb 9/25/91

## SIGNIFICANT MATERIALS

A. Asbestos

Asbestos is present in some insulation, gaskets and in the Chlorine Cells. There is a portable 600 gallon fiberglass tank used to handle wet asbestos for chlorine cells maintenance.

Form: Solid
Storage Container: In operating process units
Potential Affected Outfalls: 311, 310
BMP: 3,4,5,7

B. Betz Flocculant

Flocculants are used in the brine clarification process. It is currently stored in a 2000 gallon tank.

Form: Liquid
Storage Container: Tank
Potential Affected Outfalls: 311, 310
BMP: 4,5,7

C Brine

The Brine Storage Tank holds 440,600 gallons.

Form: Liquid
Storage Container: Tank
Potential Affected Internal Outfalls: 310, 311
BMP: 4,5

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS SP 1561
FORM 2F/ITEM IVB
ATTACHMENT B2
cdb 9/25/91

D. Carbon Dioxide

Carbon Dioxide is stored in a 10,000 gallon tank.

Form: Liquid
Storage Container: Tank
Potential Affected Internal Outfalls: 310, 311
BMP: 4,7

E. Carbon Tetrachloride

Carbon Tetrachloride is stored in a 1000 gallon tank. $CCl_4$ is also present in the spent Hydrochloric Acid taken in from Dow's Methanes Plant for pH treatment.

Form: Liquid
Storage Container: Tank
Potential Affected Internal Outfall: 310, 311
BMP: 1,2,3,4,5,7

F. Chlorinated Organics

Chlorinated Organics is a stream from purifying Chlorine gas. Hexachlorobenzene, Hexachlorobutadiene, and Hexachloroethane are contaminants that are present in this stream. It is stored in two tanks that contain 454 gallons each.

Form: Liquid
Storage Container: Tank
Potential Affected internal outfalls: 310, 311
BMP: 1,2,3,4,5,7

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS SP 1561
FORM 2F/ITEM IVB
ATTACHMENT B2
cdb 9/25/91

G. Freon

Freon is stored in a 6565 gallon container

Form: Liquid
Storage Container: Tank
Potential Affected Internal Outfalls: 310, 311
BMP: 4,7

H. 17% Hydrochloric Acid is stored in a 45,000 gallon tank and 35% Hydrochloric Acid is stored in a 20,000 gallon tank Hydrochloric Acid is used for pH treatment.

Form: Liquid
Storage Container: Tanks
Potential Affected Internal Outfalls: 310, 311
BMP: 3,4,5,7

I. Lithium Bromide is used in three Absorption Refrigeration Units each of which has a total volume of 6000 gallons.

Form: Liquid
Storage Container: Tank
Potential Affected internal outfalls: 310, 311
BMP: 4,5,7

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS SP 1561
FORM 2F/ITEM IVB
ATTACHMENT B2
cdb 9/25/91

J. Lube Oil

Lube Oil is used in the compressors, Morris pumps, centrifuges, gas turbine area, and is stored in the oil storage area. The total lube oil in the previously-mentioned areas is approximately 13,300 gallons.

Form: Liquid
Storage Container: Tanks and Process Equipment
Potential Affected internal outfalls: 311, 310
BMP: 1,2,3,4,5,6,7

K. Sodium Carbonate

Sodium Carbonate is an intermediate stored in a 31,000 gallon tank. Sodium Carbonate is used in the brine treatment process.

Form: Liquid
Storage Container: Tank
Potential Affected internal outfalls: 310, 311
BMP: 4,5,7

L. Sodium Hydroxide

Sodium Hydroxide (10% and 50%) is stored in 1,880,000 gallon and 992,000 gallon tanks, respectively.

Form: Liquid
Storage Container: Tanks
Potential Affected Internal Outfalls: 310, 311
BMP: 3,4,5

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS SP 1561
FORM 2F/ITEM IVB
ATTACHMENT B2
cdb 9/25/91

M. Sodium Thiosulfate

Sodium Thiosulfate is stored in a 20,000 gallon tank. Sodium Thiosulfate is used for dechlorination of Sodium Hypochlorite.

Form: Liquid
Storage Container: Tank
Potential Affected internal outfalls: 310, 311
BMP: 3,4,7

N. Sulfuric Acid (98%)

98% Sulfuric Acid is stored in a 14,100 gallon tank.

Form: Liquid
Storage Container: Tank
Potential Affected Internal Outfalls: 310, 311
BMP: 4,5,7

O. Sulfuric Acid (95%)

95% Sulfuric Acid is stored in two 7050 gallon tank.

Form: Liquid
Storage Container: Tank
Potential Affected Internal Outfalls: 310, 311
BMP: 4,5,7

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS SP 1561
FORM 2F/ITEM IVB
ATTACHMENT B2
cdb 9/25/91

P. Sulfuric Acid ( 65%)

65% Sulfuric Acid is stored in a 7050 gallon tank.

Form: Liquid
Storage Container: Tank
Potential Affected Internal Outfalls: 310, 311
BMP: 4,5,7

Q. Transformer Oil

Transformer oil is stored in a 1950 gallon tank.

Form: Liquid
Storage Container: Tank
Potential Affected internal outfall: 310, 311
BMP: 1,2,3,4,5,6,7

R. 1,1,1,- Trichloroethane

1,1,1 - Trichloroethane is stored in two 55 gallon drums in the oil storage area.

Form: Liquid
Storage Container: Steel Drums
Potential Affected internal outfall: 310, 311
BMP: 3,4,5,6

CHLOR-ALKALI II
NPDES LA0003301/LWDPS WP 1561
FORM 2F ITEM IV-C
ATTACHMENT C1
CDB 9/25/91

STRUCTURAL CONTROLS AT CHLOR-ALKALI II
*SEE 2F APPLICATION SITE DRAINAGE MAP FOR STRUCTURAL CONTROL LOCATIONS

DRAINAGE

All the process areas drain to internal outfall 311.

DIKED AREAS:

1. Around the Carbon Tetrachloride Storage Tanks
2. Hydrochloric Acid and Sulfuric Acid Storage Tanks
3. Sodium Thiosulfate Storage Tank
4. Chlorine Storage Tank
5. Waste Water Storage Area
6. Around Transformers (T-1E, T-2E, A-10, H-28)
7. Oil Storage Area ( Roofing)
8. Lube oil storage for Gas Turbine

OIL BOOMS

The oil booms are inspected and are replaced if saturation has occurred.

CHLOR-ALKALI II
NPDES LA0003301/LWDPS WP 1561
FORM 2F ITEM IV-C
ATTACHMENT C1
CDB 9/25/91

TREATMENT UNITS:

1. Brine Solids

2. Scrubber Effluent Storage/Treatment

3. Outfall Weir

STORAGE UNITS:

1. Waste Water Storage

2. Liquid Chlorine Storage

3. Sodium Hydroxide Storage

4. Hydrochloric Acid Storage

5. Sodium Thiosulfate Storage

6. Oil (Lube & Transformer) Storage

7. Brine Storage

8. Sulfuric Acid Storage

* For detailed description of treatment units please refer to Form 2C Item IIB.

CHLOR-ALKALI II
NPDES LA0003301/ LWDPS WP 1561
FORM 2F, ITEM IVC
ATTACHMENT C2
CDB 10/1/91

## NON-STRUCTURAL CONTROLS SUMMARY

A. SPILL PREVENTION
B. EMPLOYEE TRAINING/PROCEDURES
C. ROUNDS/CHECKLIST
D. HOUSEKEEPING
E. SAFETY, INDUSTRIAL HYGIENE - INCIDENT INVESTIGATION
F. PLANT SECURITY
G. PRESSURE VESSEL PROGRAM
H. PLANT SPECIFIC PROGRAMS

CHLOR-ALKALI II
NPDES LA0003301/ LWDPS WP 1561
FORM 2F, ITEM IVC
ATTACHMENT C2
CDB 10/1/91

## NON-STRUCTURAL CONTROLS AT CHLOR-ALKALI II

A. Spill Prevention Plans

Chlor-Alkali II has a Spill Prevention Plan (SPC) and a Spill Prevention and Countermeasures Plan (SPCC). These plans cover a wide range of spill prevention guidelines for CA II. The SPC plan is reviewed and updated every three years. Applicable requirements:

1. Spill cleanup
2. Inspection rounds
3. Spill containment
4. Agency notification
5. Maintenance procedures

B. Employee Training/Procedures

Personnel are trained on all regulations within six months of hiring and yearly thereafter. The training includes reviewing operating and maintenance techniques to prevent spills, how to respond to discharges of hazardous materials and oils, handling and containment of waste sources, and general plant environmental topics (such as sampling, rounds, and recent developments).

In Plant Training (IPT) modules are available for plant personnel to learn the areas of the plant, as well as learn job procedures for these areas.

CHLOR-ALKALI II
NPDES LA0003301/ LWDPS WP 1561
FORM 2F, ITEM IVC
ATTACHMENT C2 (cont.)
cdb 10/1/91

C. Rounds/Checklist

Rounds are made each shift by operations personnel. Visual inspections of oil leak sources are completed and documented on a daily basis. RCRA storage drum inspections are completed and documented on a weekly basis.

D. Housekeeping

Housekeeping audits are conducted by operations personnel. Any deficiencies are noted and corrective actions are assigned.

E. Safety, Industrial Hygiene, Incident Investigation

Safety and Loss Prevention Standards that have been determined for the Louisiana Division are followed for all jobs within CA II. CA II also incorporates several safety programs.

CA II has a safety program that incorporates pro-active write-ups, permit and red tag master accuracy audits, unsafe conditions, safety meetings, contractor safety meetings, and a safety committee. The safety committee is comprised of one representative from shift and one operations personnel.

The components of the Industrial Hygiene Program at CA II include:

HazCom Training (including MSDS's), respirator selection and fit-testing, exposure consequences, personnel monitoring for chemical exposures, hearing conservation, a medical surveillance program, a written program for reference, and annual reports and reviews.

CHLOR-ALKALI II
NPDES LA0003301/ LWDPS WP 1561
FORM 2F, ITEM IVC
ATTACHMENT C2 (cont.)
cdb 10/1/91

F. Safety, Industrial Hygiene, Incident Investigation (cont.)

Incident Investigations:

Safety and environmental incidents are investigated and corrective actions are assigned.

G. Security of facility and adequate lighting

CA II is attended 24 hours a day. The Division is completely fenced in and access is limited to gates manned 24 hours a day. Boundary security is provided by plant security personnel. Also, plant personnel are trained in security measures such as proper lighting, vandalism, intruders, and bomb threats.

H. Pressure Vessel Program

Critical tanks are included in Dow's pressure vessel program and are visually inspected and thickness checked.

CHLOR-ALKALI II
NPDES LA0003301/ LWDPS WP 1561
FORM 2F ITEM VI
ATTACHMENT D
cdb 9/25/91

## SPILL INCIDENTS AT CHLOR-ALKALI II

Item VI requires that existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years should be provided, including the approximate date and location of the spill or leak, and the type and amount of material released.

| | |
|---|---|
| Date of Incident: | 9/22/90 |
| Type of Chemical: | Carbon Tetrachloride |
| Amount Released: | 500 pounds |

### Incident Description:

A leak occurred in the process piperack. The amount of Carbon Tetrachloride lost was estimated to be 500 pounds uncontained to the ground. Clean up effort was completed by digging contaminated soil and placing it in fiber packs. The packs were disposed of via incineration.

### Corrective Action:

Inspect Carbon Tetrachloride line on a regular basis.

CHLOR-ALKALI II
NPDES LA0003301/ LWDPS WP 1561
FORM 2F ITEM VII
ATTACHMENT E
cdb 9/25/91

INTERNAL OUTFALLS 310 & 311

| CHEMICALS | MANUFACTURE, USE, OR BY PRODUCT |
|---|---|
| BROMIDE | BY PRODUCT |
| RESIDUAL CHLORINE | BY PRODUCT |
| TOTAL ORGANIC NITROGEN AS N | BY PRODUCT |
| OIL & GREASE | USE & BY PRODUCT |
| PHOSPHORUS | BY PRODUCT |
| SULFATE | BY PRODUCT |
| SULFIDE | BY PRODUCT |
| SULFITE | BY PRODUCT |
| SURFACTANTS | BY PRODUCT |
| BARIUM | BY PRODUCT |
| MAGNESIUM | BY PRODUCT |
| TITANIUM | BY PRODUCT |
| CHROMIUM | BY PRODUCT |
| COPPER | BY PRODUCT |
| LEAD | BY PRODUCT |
| NICKEL | BY PRODUCT |
| BROMOFORM | BY PRODUCT |
| CARBON TETRACHLORIDE | USE & BY PRODUCT |
| CHLORODIBROMOMETHANE | BY PRODUCT |
| CHLOROFORM | BY PRODUCT |
| DICHLOROBROMOMETHANE | BY PRODUCT |
| 1, 1 - DICHLOROETHANE | BY PRODUCT |
| 1, 2 - DICHLOROETHANE | BY PRODUCT |
| METHYL CHLORIDE | BY PRODUCT |
| METHYLENE CHLORIDE | BY PRODUCT |
| 1,1,2,2 - TETRACHLOROETHANE | BY PRODUCT |
| TETRACHLORETHYLENE | BY PRODUCT |
| 1,1,1 - TRICHLOROETHANE | BY PRODUCT |
| TRICHLOROETHYLENE | BY PRODUCT |
| HEXACHLOROBENZENE | BY PRODUCT |
| HEXACHLOROBUTADIENE | BY PRODUCT |
| HEXACHLOROETHANE | BY PRODUCT |
| ASBESTOS | USE |
| STRONTIUM | BY PRODUCT |
| PHOSGENE | BY PRODUCT |
| ACETALDEHYDE | BY PRODUCT |
| ALUMINUM | BY PRODUCT |
| ZINC | BY PRODUCT |
| BENZENE | BY PRODUCT |
| CHLOROBENZENE | BY PRODUCT |
| MANGENESE | BY PRODUCT |

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS WP 1561
FORM 2F, ATTACHMENT F
cdb 8/22/91

## VIII. BIOLOGICAL TOXICITY TESTING DATA

No biological testing has been performed on internal outfall 310. Quarterly acute biomonitoring was done for a 2-year period on internal outfall 311 in accordance with Part III (item 6 and 12) of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP 1561. Internal outfall 311 is discharged to the Louisiana Division canal. The organism used for the testing was Mysidopsis sp. Results for the acute biomonitoring were reporting on a quarterly basis from 1987 until early 1989.

Quarterly acute biomonitoring was done for a 2-year period on final outfall 001 in accordance with Part III.6 of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP1561. The receiving stream for final outfall 001 is the Mississippi River. The organism used for the testing was Daphnia sp. Results for the acute biomonitoring were reported on a quarterly basis from 1987 until early 1989.

Chronic testing was done on a final outfall 001 in January and February 1990. The receiving stream for final outfall 001 is the Mississippi River. The organisms used were Ceriodaphnis dubia and Pimephales promelas. Results have been reported to the state.

9-91/lww

CHLOR-ALKALI II
NPDES LA 0003301/LWDPS WP 1561
FORM 2F, ATTACHMENT G
cdb 8/22/91

IX. CONTRACT ANALYSIS INFORMATION

A, B, C. NAME, ADDRESS, TELEPHONE

West Paine Laboratories, Inc., 7979 GSRI Avenue, Baton Rouge, LA 70820, (504) 769-4900

D. POLLUTANTS ANALYZED

BOD, COD, total phenols, total cyanide, sulfates, sulfite, total phosphorous, total kjedahl nitrogen, fecal coliform, fluoride, total organic nitrogen as N, surfactants, total radium, total radium 226, total aluminum, total barium, total boron, total cobalt, total iron, total magnesium, total molybdenum, total manganese, total tin, total titanium, total antimony, total arsenic, total beryllium, total chromium, total copper, total lead, total mercury, total nickel, total selenium, total silver, total thallium, total zinc, color.

A, B, C. NAME, ADDRESS, TELEPHONE

No longer in existence, Gulf Engineering and Consultants, 535 Main Street, Baton Rouge, LA 70801.

D. POLLUTANTS

Acute biomonitoring

A, B, C. NAME, ADDRESS, TELEPHONE

Analytical and Environmental Testing, 1717 Seabord Drive, Suite 101, Baton Rouge, LA 70810, (504) 769-1930

D. POLLUTANTS

Chronic biomonitoring

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)*: LA0003301/WP1561

*Form Approved OMB No 2040 0086 Approval expires 7 31 88*

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

OUTFALL NO 310

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 | (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 | 3. UNITS (specify if blank) a. CONCENTRATION | b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand (BOD) | Internal Outfall 310 is a newly defined outfall at CA II. Please refer to 2E testing results. | | | | | | | | | | | |
| b. Chemical Oxygen Demand (COD) | All unanswered portions of this form are not applicable. | | | | | | | | | | | |
| c. Total Organic Carbon (TOC) | | | | | | | | | | | | |
| d. Total Suspended Solids (TSS) | | | | | | | | | | | | |
| e. Ammonia (as N) | | | | | | | | | | | | |
| 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 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. 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 | b. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Bromide (24959 67 9) | | | | | | | | | | | | | | |
| b. Chlorine, Total Residual | | | | | | | | | | | | | | |
| c. Color | | | | | | | | | | | | | | |
| d. Fecal Coliform | | | | | | | | | | | | | | |
| e. Fluoride (16984 48 8) | | | | | | | | | | | | | | |
| f. Nitrate-Nitrite (as N) | | | | | | | | | | | | | | |



CONTINUE ON REVERSE

| 1. POLLUTANT AND CAS NO. (if available) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. Nitrogen, Total organic (as N) | | | | | | | | | | | | | | |
| h. Oil and Grease | | | | | | | | | | | | | | |
| i. Phosphorus (as P), Total (7723 14 0) | | | | | | | | | | | | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | | | | | | | | | | | | | |
| (2) Beta, Total | | | | | | | | | | | | | | |
| (3) Radium, Total | | | | | | | | | | | | | | |
| (4) Radium 226, Total | | | | | | | | | | | | | | |
| k. Sulfate (as $SO_4$) (14808 79 8) | | | | | | | | | | | | | | |
| l. Sulfide (as S) | | | | | | | | | | | | | | |
| m. Sulfite (as $SO_3$) (14265 45 3) | | | | | | | | | | | | | | |
| n. Surfactants | | | | | | | | | | | | | | |
| o. Aluminum, Total (7429 90 5) | | | | | | | | | | | | | | |
| p. Barium, Total (7440 39 3) | | | | | | | | | | | | | | |
| q. Boron, Total (7440 42 8) | | | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48 4) | | | | | | | | | | | | | | |
| s. Iron, Total (7439 89 6) | | | | | | | | | | | | | | |
| t. Magnesium, Total (7439 95 4) | | | | | | | | | | | | | | |
| u. Molybdenum, Total (7439 98 7) | | | | | | | | | | | | | | |
| v. Manganese, Total (7439 96 5) | | | | | | | | | | | | | | |
| w. Tin, Total (7440 31 5) | | | | | | | | | | | | | | |
| x. Titanium, Total (7440 32 6) | | | | | | | | | | | | | | |



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| EPA I.D. NUMBER (copy from Item 1 of I | OUTFALL NUMBER |
|---|---|
| LA0003301/WP1561 | 310 |

Form Approved
OMB No 2040 0086
Approval expires 7 31 88

CONTINUED FROM PAGE 3 OF FORM 2-C

**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, nonprocess wastewater outfalls, and nonrequired 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 is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully Complete one table *(all 7 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. TEST-ING REQUIRED | b. BE-LIEVED PRES-ENT | c. BE-LIEVED ABS-ENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL-YSES | a. CONCEN-TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL-YSES |
| | | | | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | | | | (a) CONCEN-TRATION | (b) MASS | |
| **METALS, CYANIDE, AND TOTAL PHENOLS** | | | | | | | | | | | | | | | |
| 1M Antimony, Total (7440 36 0) | | | | | | | | | | | | | | | |
| 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 (7440 50-8) | | | | | | | | | | | | | | | |
| 7M Lead Total (7439-92-1) | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | |
| **DIOXIN** | | | | | | | | | | | | | | | |
| 2 3 7 8 Tetra Chlorodibenzo P Dioxin (1746-01 6) | | | | DESCRIBE RESULTS | | | | | | | | | | | |



CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK X | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | a. MARK X | b. NO. OF ANALYSES PRESENT | c. NO. OF ANALYSES ABSENT | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | | | | (a) CONCENTRATION | (b) MASS | |
| **GC/MS FRACTION – VOLATILE COMPOUNDS** | | | | | | | | | | | | | | | |
| 1V. Acrolein (107-02-8) | | | | | | | | | | | | | | | |
| 2V. Acrylonitrile (107-13-1) | | | | | | | | | | | | | | | |
| 3V. Benzene (71-43-2) | | | | | | | | | | | | | | | |
| 4V. Bis (Chloromethyl) Ether (542-88-1) | | | | | | | | | | | | | | | |
| 5V. Bromoform (75-25-2) | | | | | | | | | | | | | | | |
| 6V. Carbon Tetrachloride (56-23-5) | | | | | | | | | | | | | | | |
| 7V. Chlorobenzene (108-90-7) | | | | | | | | | | | | | | | |
| 8V. Chlorodibromomethane (124-48-1) | | | | | | | | | | | | | | | |
| 9V. Chloroethane (75-00-3) | | | | | | | | | | | | | | | |
| 10V. 2-Chloroethylvinyl Ether (110-75-8) | | | | | | | | | | | | | | | |
| 11V. Chloroform (67-66-3) | | | | | | | | | | | | | | | |
| 12V. Dichlorobromomethane (75-27-4) | | | | | | | | | | | | | | | |
| 13V. Dichlorodifluoromethane (75-71-8) | | | | | | | | | | | | | | | |
| 14V. 1,1-Dichloroethane (75-34-3) | | | | | | | | | | | | | | | |
| 15V. 1,2-Dichloroethane (107-06-2) | | | | | | | | | | | | | | | |
| 16V. 1,1-Dichloroethylene (75-35-4) | | | | | | | | | | | | | | | |
| 17V. 1,2-Dichloropropane (78-87-5) | | | | | | | | | | | | | | | |
| 18V. 1,3-Dichloropropylene (542-75-6) | | | | | | | | | | | | | | | |
| 19V. Ethylbenzene (100-41-4) | | | | | | | | | | | | | | | |
| 20V. Methyl Bromide (74-83-9) | | | | | | | | | | | | | | | |
| 21V. Methyl Chloride (74-87-3) | | | | | | | | | | | | | | | |



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EPA I.D. NUMBER (copy from Item 1 of I) LA0003301/WP1561

OUTFALL NUMBER 310

OMB No. 2040-0086 Approval expires 7-31-88

| 1. POLLUTANT AND CAS NUMBER (if available) | MARK "X" a. PRESENCE OR BELIEVED PRESENT | b. ABSENCE OR BELIEVED ABSENT | c. PRESENCE 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) | | | | | | | | | | | | | | | |
| 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) | | | | | | | | | | | | | | | |
| **GC/MS FRACTION – ACID COMPOUNDS** | | | | | | | | | | | | | | | |
| 1A. 2-Chlorophenol (95-57-8) | | | | | | | | | | | | | | | |
| 2A. 2,4-Dichlorophenol (120-83-2) | | | | | | | | | | | | | | | |
| 3A. 2,4 Dimethylphenol (105-67-9) | | | | | | | | | | | | | | | |
| 4A. 4,6-Dinitro O Cresol (534-52-1) | | | | | | | | | | | | | | | |
| 5A. 2,4 Dinitrophenol (51-28-5) | | | | | | | | | | | | | | | |
| 6A. 2-Nitrophenol (88-75-5) | | | | | | | | | | | | | | | |
| 7A. 4-Nitrophenol (100-02-7) | | | | | | | | | | | | | | | |
| 8A. P-Chloro M-Cresol (59-50-7) | | | | | | | | | | | | | | | |
| 9A. Pentachlorophenol (87-86-5) | | | | | | | | | | | | | | | |
| 10A. Phenol (108-95-2) | | | | | | | | | | | | | | | |
| 11A. 2,4,6-Trichlorophenol (88-06-2) | | | | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 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 | | 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 AVRGE. VALUE | | d. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS | | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | | | | | | | | | | | | | | | |
| 2B. Acenaphtylene (208-96-8) | | | | | | | | | | | | | | | |
| 3B. Anthracene (120-12-7) | | | | | | | | | | | | | | | |
| 4B. Benzidine (92-87-5) | | | | | | | | | | | | | | | |
| 5B. Benzo (a) Anthracene (56-55-3) | | | | | | | | | | | | | | | |
| 6B. Benzo (a) Pyrene (50-32-8) | | | | | | | | | | | | | | | |
| 7B. 3,4-Benzo-fluoranthene (205-99-2) | | | | | | | | | | | | | | | |
| 8B. Benzo (ghi) Perylene (191-24-2) | | | | | | | | | | | | | | | |
| 9B. Benzo (k) Fluoranthene (207-08-9) | | | | | | | | | | | | | | | |
| 10B. Bis (2-Chloro-ethoxy) Methane (111-91-1) | | | | | | | | | | | | | | | |
| 11B. Bis (2-Chloro ethyl) Ether (111-44-4) | | | | | | | | | | | | | | | |
| 12B. Bis (2-Chloro propyl) Ether (102-80-1) | | | | | | | | | | | | | | | |
| 13B. Bis (2-Ethyl hexyl) Phthalate (117-81-7) | | | | | | | | | | | | | | | |
| 14B. 4-Bromo phenyl Phenyl Ether (101-55-3) | | | | | | | | | | | | | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | | | | | | | | | | | | | | | |
| 16B. 2-Chloro naphthalene (91-58-7) | | | | | | | | | | | | | | | |
| 17B. 4-Chloro phenyl Phenyl Ether (7005-72-3) | | | | | | | | | | | | | | | |
| 18B. Chrysene (218-01-9) | | | | | | | | | | | | | | | |
| 19B. Dibenzo (a,h) Anthracene (53-70-3) | | | | | | | | | | | | | | | |
| 20B. 1,2-Dichloro benzene (95-50-1) | | | | | | | | | | | | | | | |
| 21B. 1,3-Dichloro benzene (541-73-1) | | | | | | | | | | | | | | | |

CONTINUED FROM E V-6

PERMIT NUMBER LA0003301/WP1561 | OUTFALL NUMBER 310

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK X | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. Analytical Method Used | b. Pollutant Present | c. Pollutant 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 |
| | | | | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | | | | (a) CONCENTRATION | (b) MASS | |
| **GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 22B. 1,4 Dichlorobenzene (106 46 7) | | | | | | | | | | | | | | | |
| 23B 3,3' Dichlorobenzidine (91 94 1) | | | | | | | | | | | | | | | |
| 24B Diethyl Phthalate (84 66 2) | | | | | | | | | | | | | | | |
| 25B. Dimethyl Phthalate (131 11 3) | | | | | | | | | | | | | | | |
| 26B. Di N-Butyl Phthalate (84 74 2) | | | | | | | | | | | | | | | |
| 27B. 2,4 Dinitrotoluene (121 14 2) | | | | | | | | | | | | | | | |
| 28B 2,6 Dinitrotoluene (606 20 2) | | | | | | | | | | | | | | | |
| 29B Di N Octyl Phthalate (117 84 0) | | | | | | | | | | | | | | | |
| 30B. 1,2 Diphenylhydrazine (as Azobenzene) (122-66-7) | | | | | | | | | | | | | | | |
| 31B Fluoranthene (206 44 0) | | | | | | | | | | | | | | | |
| 32B Fluorene (86 73-7) | | | | | | | | | | | | | | | |
| 33B Hexachlorobenzene (118 74 1) | | | | | | | | | | | | | | | |
| 34B Hexachlorobutadiene (87 68-3) | | | | | | | | | | | | | | | |
| 35B. Hexachlorocyclopentadiene (77-47-4) | | | | | | | | | | | | | | | |
| 36B. Hexachloroethane (67-72-1) | | | | | | | | | | | | | | | |
| 37B Indeno (1,2,3 cd) Pyrene (193 39 5) | | | | | | | | | | | | | | | |
| 38B. Isophorone (78 59 1) | | | | | | | | | | | | | | | |
| 39B Naphthalene (91 20 3) | | | | | | | | | | | | | | | |
| 40B Nitrobenzene (98 95 3) | | | | | | | | | | | | | | | |
| 41B N Nitrosodimethylamine (62 75 9) | | | | | | | | | | | | | | | |
| 42B N Nitrosodi N Propylamine (621 64 7) | | | | | | | | | | | | | | | |



CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | | 3. EFFLUENT: A. MAXIMUM DAILY VALUE | | B. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVRG. VALUE (if available) | | D. NO. OF ANALYSES | 4. UNITS: A. CONCENTRATION | B. MASS | 5. INTAKE (optional): A. LONG TERM AVERAGE VALUE | | B. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A. BELIEVED PRESENT | B. BELIEVED ABSENT | C. LIMITED OR ABSENT | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| **GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS** (continued) | | | | | | | | | | | | | | | |
| 43B. N Nitrosodiphenylamine (86-30-6) | | | | | | | | | | | | | | | |
| 44B. Phenanthrene (85-01-8) | | | | | | | | | | | | | | | |
| 45B. Pyrene (129-00-0) | | | | | | | | | | | | | | | |
| 46B. 1,2,4-Trichlorobenzene (120-82-1) | | | | | | | | | | | | | | | |
| **GC/MS FRACTION – PESTICIDES** | | | | | | | | | | | | | | | |
| 1P. Aldrin (309-00-2) | | | | | | | | | | | | | | | |
| 2P. α-BHC (319-84-6) | | | | | | | | | | | | | | | |
| 3P. β-BHC (319-85-7) | | | | | | | | | | | | | | | |
| 4P. γ-BHC (58-89-9) | | | | | | | | | | | | | | | |
| 5P. δ-BHC (319-86-8) | | | | | | | | | | | | | | | |
| 6P. Chlordane (57-74-9) | | | | | | | | | | | | | | | |
| 7P. 4,4'-DDT (50-29-3) | | | | | | | | | | | | | | | |
| 8P. 4,4'-DDE (72-55-9) | | | | | | | | | | | | | | | |
| 9P. 4,4'-DDD (72-54-8) | | | | | | | | | | | | | | | |
| 10P. Dieldrin (60-57-1) | | | | | | | | | | | | | | | |
| 11P. α-Endosulfan (115-29-7) | | | | | | | | | | | | | | | |
| 12P. β-Endosulfan (115-29-7) | | | | | | | | | | | | | | | |
| 13P. Endosulfan Sulfate (1031-07-8) | | | | | | | | | | | | | | | |
| 14P. Endrin (72-20-8) | | | | | | | | | | | | | | | |
| 15P. Endrin Aldehyde (7421-93-4) | | | | | | | | | | | | | | | |
| 16P. Heptachlor (76-44-8) | | | | | | | | | | | | | | | |



CONTINUE ON PAGE V-9

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CONTINUED FROM E V8

EPA I.D. NUMBER (copy from Item 1 of Page 1): LA0003301/WP1561

OUTFALL NUMBER: 310

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. Believed Present | b. Believed Absent | c. Limited or 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 – PESTICIDES** (continued) | | | | | | | | | | | | | | | |
| 17P. Heptachlor Epoxide (1024 57-3) | | | | | | | | | | | | | | | |
| 18P. PCB-1242 (53469 21 9) | | | | | | | | | | | | | | | |
| 19P. PCB 1254 (11097-69-1) | | | | | | | | | | | | | | | |
| 20P. PCB-1221 (11104 28-2) | | | | | | | | | | | | | | | |
| 21P. PCB-1232 (11141-16-5) | | | | | | | | | | | | | | | |
| 22P. PCB-1248 (12672-29-6) | | | | | | | | | | | | | | | |
| 23P. PCB-1260 (11096-82-5) | | | | | | | | | | | | | | | |
| 24P. PCB-1016 (12674 11 2) | | | | | | | | | | | | | | | |
| 25P. Toxaphene (8001-35-2) | | | | | | | | | | | | | | | |

OUTFALL: Internal Outfall 310

EPA ID Number (copy from item I of Form 1)
LA0003301/WP1561

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| Oil and Grease | Internal Outfall 310 is a newly defined outfall at CA II. Representative | | | | | |
| Biological Oxygen Demand (BOD5) | sampling has not yet occurred.* Results of sampling will be sent by | | | | | |
| Chemical Oxygen Demand (COD) | first quarter 1992 as previously communicated (Cole, Dow to Knudson, | | | | | |
| Total Suspended Solids (TSS) | EPA 8/29/91). All unanswered portions of this form are not applicable. | | | | | |
| Total Kjeldahl Nitrogen | | | | | | |
| Nitrate plus Nitrite Nitrogen | | | | | | |
| Total Phosphorus | | | | | | |
| pH | Minimum | Maximum | Minimum | Maximum | | |

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

| Pollutant and CAS Number *(if available)* | Maximum Values *(include units)* | | Average Values *(include units)* | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample

| 1. Date of Storm Event | 2. Duration of Storm *(in minutes)* | 3. Total rainfall during storm event *(in inches)* | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event *(gallons/minute or specify units* | 6. Total flow from rain event *(gallons or specify units)* | 7. Season sample was taken | 8. Form of Precipitation *(rainfall, snowmelt)* |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

9. Provide a description of the method of flow measurement or estimate.

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | QUANTITATION LIMIT (MG/L) | METHOD |
|---|---|---|
| CYANIDE | 0.01 | 412 B&D |
| BOD | 1 | 507 |
| COD | 10 | 508A |
| BORON | 0.1 | 404A |
| TOTAL KJELDAHL N2 | 1 | 420A, 417D |
| COLOR (TRUE/APPARENT) | 15 APHA | 204A |
| FOAMING AGENTS | 0.1 | 512B |
| ORGANIC NITROGEN | 1 | 420A, 417A &D |
| PHENOLS | 0.002 | 510A&B |
| FECAL COLIFORM | 1 COL/100ML | 909C |
| SULFITE (TITRIMETRIC) | 2 | 377.1 |
| ALUMINUM | 0.2 | 202.1 |
| ANTIMONY | 0.1 | 204.1 |
| ARSENIC | 0.01 | 206.2 |
| BARIUM | 0.1 | 208.1 |
| BERYLLIUM | 0.005 | 210.2 |
| CADMIUM | 0.01 | 213.2 |
| CHROMIUM | 0.01 | 218.2 |
| COBALT | 0.05 | 219.1 |
| COPPER | 0.005 | 220.2 |
| IRON | 0.03 | 236.1 |
| LEAD | 0.005 | 239.2 |
| MAGNESIUM | 0.01 | 242.1 |
| MANAGANESE | 0.01 | 243.1 |
| MERCURY | 0.0002 | 245.1 |
| MOLYBDENUM | 0.03 | 246.1 |
| NICKEL | 0.05 | 249.1 |
| SELENIUM | 0.01 | 270.2 |
| SILVER | 0.005 | 272.2 |
| THALLIUM | 0.1 | 279.2 |
| TIN | 1 | 282.1 |
| TITANUIM | 0.3 | 283.1 |
| ZINC | 0.01 | 289.1 |
| TOTAL PHOSPHORUS | 0.1 | 424C&F |
| NO2/NO3 | 0.05 | 418C |
| BROMIDE | 2 | 320.1 |
| SULFATE (TURBIDIMETRIC) | 5 | 426C |
| OIL & GREASE | 1 | 413.1 |
| RESIDUAL CHLORINE | 0.05 | ORION |
| TOTAL OXYGEN DEMAND | 10 | ASTM 3250-77 |
| TOTAL SUSPENDED SOLIDS | 1 | 160.2 |
| TOTAL ORGANIC CARBON | 2 | 415.1 |
| VOLATILE ORGANICS | 0.01 | 601, 602, 624 |
| BASE NEUTRALS | 0.01 | 625 |
| ACID PHENOLS | 0.01 | 625 |

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | LIMIT (MG/L) | METHOD |
|---|---|---|
| PESTICIDES | 0.01 | 625 |
| AMMONIA | 0.01 | 350.3 |
| SULFIDE | 0.01 | 376.1 |
| pH | 0-14 SU | 150.1 |
| TEMPERATURE | .5°C | 170.1 |
| FLUORIDES | 0.2 | 413B |

| | PCI/L | METHOD |
|---|---|---|
| RADILOGICALS | | |
| GROSS ALPHA | 0.1 | 703 |
| GROSS BETA | 0.10 | 703 |
| RADIUM (226) | 0.10 | 705 |
| RADIUM (228) | 0.10 | 706 |
| TOTAL RADIUM | 0.10 | 705 |

For any test value below the quantitation limit, a zero was used for any required calculation.

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 I of Form 1)*: LA0003301/WP1561

*Form Approved OMB No. 2040-0086 Approval expires 7-31-88*

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

OUTFALL NO. 311

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 | (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 | 3. UNITS (specify if blank) a. CONCENTRATION | b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand (BOD) | 28 | 724 | | | | | 1 | mg/l | lb | | | |
| b. Chemical Oxygen Demand (COD) | 123 | 3180 | Interference believed present | | | | 1 | mg/l | lb | | | |
| c. Total Organic Carbon (TOC) | 8 | 207 | | | | | 1 | mg/l | lb | | | |
| d. Total Suspended Solids (TSS) | 248 | 4075 | 36 | 541 | 19 | 338 | 820 | mg/l | lb | | | |
| e. Ammonia (as N) | * | | | | | | 1 | mg/l | lb | | | |
| f. Flow | VALUE 5.17 | | VALUE 4.13 | | VALUE 2.32 | | 881 | MGD | | 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 or present but not in excess of the maximum allowable discharge limitation for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline. you must provide the results of at least one analysis for every pollutant in this table. If you answer "yes" to any pollutant in column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and for reporting requirements.

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK "X" a. BELIEVED PRESENT | b. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Bromide (24959-67-9) | X | | * | | | | | | 1 | mg/l | lb | | | |
| b. Chlorine, Total Residual | X | | 2.28 | 21.5 | 0.10 | 1.2 | 0.02 | 0.3 | 820 | mg/l | lb | | | |
| c. Color | | X | | | | | | | | | | | | |
| d. Fecal Coliform | | X | | | | | | | | | | | | |
| e. Fluoride (16984-48-8) | | X | | | | | | | | | | | | |
| f. Nitrate-Nitrite (as N) | X | | 2.33 | 60.2 | | | | | 1 | mg/l | lb | | | |



CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK "X" a. PRESENT | 2. MARK "X" b. 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 (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. Nitrogen, Total Organic (as N) | | X | | | | | | | | | | | | |
| h. Oil and Grease | X | | 1 | 25.9 | | | | | 1 | mg/l | lb | | | |
| i. Phosphorus (as P), Total (7723-14-0) | X | | 1.3 | 25.9 | | | | | 2 | mg/l | lb | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | X | | | | | | | | | | | | |
| (2) Beta, Total | | X | | | | | | | | | | | | |
| (3) Radium, Total | | X | | | | | | | | | | | | |
| (4) Radium 226, Total | | X | | | | | | | | | | | | |
| k. Sulfate (as $SO_4$) (14808-79-8) | X | | 1080 | 20266 | | | | | 1 | mg/l | lb | | | |
| l. Sulfide (as S) | X | | 10.24 | 265 | | | | | 1 | mg/l | lb | | | |
| m. Sulfite (as $SO_3$) (14265-45-3) | X | | 28 | 757 | | | | | 1 | mg/l | lb | | | |
| n. Surfactants | X | | 0.5 | 13 | | | | | 1 | mg/l | lb | | | |
| o. Aluminum, Total (7429-90-5) | | X | | | | | | | | | | | | |
| p. Barium, Total (7440-39-3) | X | | 0.3 | 7.8 | | | | | 1 | mg/l | lb | | | |
| q. Boron, Total (7440-42-8) | | X | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48-4) | | X | | | | | | | | | | | | |
| s. Iron, Total (7439-89-6) | X | | 2.7 | 69.8 | | | | | 1 | mg/l | lb | | | |
| t. Magnesium, Total (7439-95-4) | X | | 34 | 879 | | | | | 1 | mg/l | lb | | | |
| u. Molybdenum, Total (7439-98-7) | | X | | | | | | | | | | | | |
| v. Manganese, Total (7439-96-5) | | X | | | | | | | | | | | | |
| w. Tin, Total (7440-31-5) | | X | | | | | | | | | | | | |
| x. Titanium, Total (7440-32-6) | | X | | | | | | | | | | | | |

| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| LA0003301/WP1561 | 311 |

Form Approved
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Approval expires 7-31-88

CONTINUED FROM PAGE 3 OF FORM 2-C

**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, nonprocess wastewater outfalls, and nonrequired 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 is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl 4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part - please review each carefully. Complete one table (*all 7 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. PRESENT | b. PRESENT | c. 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 AVRG. VALUE | b. NO. OF ANALYSES | |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | | | |
| **METALS, CYANIDE, AND TOTAL PHENOLS** | | | | | | | | | | | | | | | |
| 1M Antimony, Total (7440-36-0) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 2M Arsenic, Total (7440-38-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3M Beryllium, Total, 7440-41-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4M Cadmium, Total (7440-43-9) | X | | | 0.02 | 0.4 | | | | | 1 | mg/l | lb | | | |
| 5M Chromium, Total (7440-47-3) | X | | | 0.03 | 0.8 | | | | | 1 | mg/l | lb | | | |
| 6M Copper, Total (7440-50-8) | X | | | 0.773 | 11.6 | 0.316 | 4.5 | 0.038 | 0.6 | 117 | mg/l | lb | | | |
| 7M Lead, Total (7439-92-1) | X | | | 0.120 | 3.0 | 0.024 | 0.6 | 0.003 | 0.05 | 117 | mg/l | lb | | | |
| 8M Mercury, Total (7439-97-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 9M Nickel, Total (7440-02-0) | X | | | 1.862 | 25.8 | 0.528 | 7.1 | 0.129 | 2.2 | 117 | mg/l | lb | | | |
| 10M Selenium, Total (7782-49-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 11M Silver, Total (7440-22-4) | X | | | 0.04 | 1.0 | | | | | 1 | mg/l | lb | | | |
| 12M Thallium, Total (7440-28-0) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 13M Zinc, Total (7440-66-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 14M Cyanide, Total (57-12-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 15M Phenols, Total | X | | | * | | | | | | 1 | mg/l | lb | | | |
| **DIOXIN** | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetra-chlorodibenzo-p-dioxin (TCDD) | | | | [illegible] | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | c. LIMITED OR NO DATA | 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 AVRG. VALUE | | b. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| **GC/MS FRACTION – VOLATILE COMPOUNDS** | | | | | | | | | | | | | | | |
| 1V. Acrolein (107-02-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 2V. Acrylonitrile (107-13-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3V. Benzene (71-43-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4V. Bis (Chloromethyl) Ether (542-88-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 5V. Bromoform (75-25-2) | X | | | 0.092 | 2.7 | 0.021 | 0.6 | 0.006 | 0.1 | 118 | mg/l | lb | | | |
| 6V. Carbon Tetrachloride (56-23-5) | X | | | 0.390 | 5.0 | 0.110 | 1.4 | 0.006 | 0.08 | 118 | mg/l | lb | | | |
| 7V. Chlorobenzene (108-90-7) | X | | | 0.005 | 0.08 | 0.001 | 0.02 | 0.00005 | 0.001 | 118 | mg/l | lb | | | |
| 8V. Chlorodibromomethane (124-48-1) | X | | | 0.023 | 0.7 | 0.007 | 0.2 | 0.002 | 0.05 | 118 | mg/l | lb | | | |
| 9V. Chloroethane (75-00-3) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |
| 10V. 2-Chloroethylvinyl Ether (110-75-8) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |
| 11V. Chloroform (67-66-3) | X | | | 0.098 | 1.5 | 0.073 | 1.1 | 0.035 | 0.6 | 118 | mg/l | lb | | | |
| 12V. Dichlorobromomethane (75-27-4) | X | | | 0.020 | 0.32 | 0.010 | 0.23 | 0.004 | 0.07 | 118 | mg/l | lb | | | |
| 13V. Dichlorodifluoromethane (75-71-8) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |
| 14V. 1,1-Dichloroethane (75-34-3) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |
| 15V. 1,2-Dichloroethane (107-06-2) | X | | | 0.006 | 0.12 | 0.001 | 0.03 | 0.00005 | 0.001 | 118 | mg/l | lb | | | |
| 16V. 1,1-Dichloroethylene (75-35-4) | X | | | 0.007 | 0.07 | 0.001 | 0.014 | 0.00006 | 0.0006 | 118 | mg/l | lb | | | |
| 17V. 1,2-Dichloropropane (78-87-5) | X | | | 0.020 | 0.3 | 0.005 | 0.07 | 0.0002 | 0.002 | 118 | mg/l | lb | | | |
| 18V. 1,3-Dichloropropylene (542-75-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 19V. Ethylbenzene (100-41-4) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 20V. Methyl Bromide (74-83-9) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |
| 21V. Methyl Chloride (74-87-3) | X | | | 2.495 | 0.046 | 0.499 | 9.2 | 0.022 | 0.4 | 118 | mg/l | lb | | | |



CONTINUE ON PAGE V

CONTINUED FROM PAGE V-4

EPA ID NUMBER (copy from Item 1 of Form 1): LA0003301/WP1561

OUTFALL NUMBER: 311

| 1. POLLUTANTS AND CAS NUMBER (if available) | 2. MARK "X" | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | a. MAXIMUM DAILY VALUE (if available) | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | | | | | |
| | a. Presence/Absence Known | b. Presence/Absence Believed | c. Presence/Absence Believed Absent | (1) Concentration | (2) Mass | (1) Concentration | (2) Mass | (1) Concentration | (2) Mass | d. No. of Analyses | (1) Concentration | (2) Mass | (1) Concentration | (2) Mass | d. No. of Analyses |
| **GC/MS FRACTION – VOLATILE COMPOUNDS** (continued) | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75-09-2) | X | | | 0.010 | 0.2 | 0.003 | 0.04 | 0.0002 | 0.004 | 118 | mg/l | lb | | |
| 23V. 1,1,2,2 Tetrachloroethane (79-34-5) | X | | | 0.013 | 0.4 | 0.003 | 0.09 | 0.0003 | 0.007 | 118 | mg/l | lb | | |
| 24V. Tetrachloroethylene (127-18-4) | X | | | 0.020 | 0.2 | 0.004 | 0.04 | 0.0002 | 0.002 | 118 | mg/l | lb | | |
| 25V. Toluene (108-88-3) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 26V. 1,2 Trans-Dichloroethylene (156-60-5) | X | | | 0.007 | 0.3 | 0.002 | 0.07 | 0.0001 | 0.003 | 118 | mg/l | lb | | |
| 27V. 1,1,1 Trichloroethane (71-55-6) | X | | | 0.037 | 1.5 | 0.010 | 0.37 | 0.001 | 0.03 | 118 | mg/l | lb | | |
| 28V. 1,1,2 Trichloroethane (79-00-5) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | |
| 29V. Trichloroethylene (79-01-6) | X | | | 0.011 | 0.2 | 0.002 | 0.05 | 0.0002 | 0.004 | 118 | mg/l | lb | | |
| 30V. Trichlorofluoromethane (75-69-4) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 31V. Vinyl Chloride (75-01-4) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | |
| **GC/MS FRACTION – ACID COMPOUNDS** | | | | | | | | | | | | | | |
| 1A. 2 Chlorophenol (95-57-8) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 2A. 2,4 Dichlorophenol (120-83-2) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 3A. 2,4 Dimethyl phenol (105-67-9) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 4A. 4,6-Dinitro O-Cresol (534-52-1) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 5A. 2,4 Dinitrophenol (51-28-5) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 6A. 2 Nitrophenol (88-75-5) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 7A. 4 Nitrophenol (100-02-7) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 8A. P-Chloro M Cresol (59-50-7) | X | | | * | | | | | | 1 | mg/l | lb | | |
| 9A. Pentachlorophenol (87-86-5) | X | | | * | | | | | | 1 | mg/l | lb | | |
| [illegible] | X | | | * | | | | | | 1 | mg/l | lb | | |
| [illegible] | X | | | * | | | | | | 1 | mg/l | lb | | |

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| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | | 4. EFFLUENT | | | | | | | 3. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. Testing Required by Guidelines | b. Pollutant Present | c. Pollutant Not Present | 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 AVRG. VALUE | b. MASS | d. No. of Analyses |
| | | | | (a) Concentration | (b) Mass | (a) Concentration | (b) Mass | (a) Concentration | (b) Mass | | | | (a) Concentration | (b) Mass | |
| **GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS** | | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 2B. Acenaphtylene (208-96-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3B. Anthracene (120-12-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4B. Benzidine (92-87-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 5B. Benzo (a) Anthracene (56-55-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 6B. Benzo (a) Pyrene (50-32-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 7B. 3,4-Benzo-fluoranthene (205-99-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 8B. Benzo (ghi) Perylene (191-24-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 9B. Benzo (k) Fluoranthene (207-08-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 10B. Bis (2 Chloro-ethoxy) Methane (111-91-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 11B. Bis (2 Chloro ethyl) Ether (111-44-4) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 12B. Bis (2 Chloroso-propyl) Ether (102-60-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 13B. Bis (2 Ethyl hexyl) Phthalate (117-81-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 14B. 4-Bromo phenyl Phenyl Ether (101-55-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 16B. 2 Chloro naphthalene (91-58-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 17B. 4 Chloro-phenyl Phenyl Ether (7005-72-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 18B. Chrysene (218-01-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 19B. Dibenzo (a,h) Anthracene (53-70-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 20B. 1,2 Dichloro benzene (95-50-1) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |
| 21B. 1,3 Dichlo[illegible] (541-[illegible]) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |

EPA Form 3510-2C (Rev. 2-85)

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EPA I.D. NUMBER (copy from Item 1 of Form 1): LA0003301/WP156

OUTFALL NUMBER: 311

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" a. Present in Effluent | b. Present in Potential Discharge | c. Present in Intake | 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 Analysis | 4. UNITS a. Concentration | b. Mass | 5. INTAKE (optional) a. Long Term Average Value (1) Concentration | (2) Mass | b. No. of Analysis |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS** (continued) | | | | | | | | | | | | | | | |
| 22B. 1,4 Dichloro benzene (106 46 7) | X | | | * | * | * | * | * | * | 118 | mg/l | lb | | | |
| 23B. 3,3'-Dichloro-benzidine (91 94 1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 24B. Diethyl Phthalate (84-66 2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 25B. Dimethyl Phthalate (131 11-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 26B. Di-N-Butyl Phthalate (84 74-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 27B 2,4 Dinitro toluene (121 14 2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 28B. 2,6 Dinitro toluene (606 20 2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 29B. Di N Octyl Phthalate (117 84 0) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 30B. 1,2-Diphenyl-hydrazine (as Azo-benzene) (122-66 7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 31B Fluoranthene (206-44-0) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 32B. Fluorene (86-73-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 33B Hexachlorobenzene (118-74 1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 34B Hexa chlorobutadiene (87 68-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 35B. Hexachloro-cyclopentadiene (77 47-4) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 36B Hexachloro-ethane (67-72-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 37B Indeno (1,2,3-cd) Pyrene (193 39-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 38B Isophorone (78 59 1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 39B Naphthalene (91 20 3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 40B Nitrobenzene (98 33 3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| | X | | | * | | | | | | 1 | mg/l | lb | | | |
| | X | | | * | | | | | | 1 | mg/l | lb | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | | 4. EFFLUENT | | | | | | | 5. UNITS | | 6. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. Testing 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 Analysis | a. Concentration | b. Mass | a. LONG TERM AVRG. VALUE (if available) | | b. No. of Analysis |
| | | | | (a) Concentration | (b) Mass | (a) Concentration | (b) Mass | (a) Concentration | (b) Mass | | | | (a) Concentration | (b) Mass | |
| **GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 43B. N-Nitrosodiphenylamine (86-30-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 44B. Phenanthrene (85-01-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 45B. Pyrene (129-00-0) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 46B. 1,2,4-Trichlorobenzene (120-82-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| **GC/MS FRACTION — PESTICIDES** | | | | | | | | | | | | | | | |
| 1P. Aldrin (309-00-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 2P. α-BHC (319-84-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3P. β-BHC (319-85-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4P. γ-BHC (58-89-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 5P. δ-BHC (319-86-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 6P. Chlordane (57-74-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 7P. 4,4'-DDT (50-29-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 8P. 4,4'-DDE (72-55-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 9P. 4,4'-DDD (72-54-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 10P. Dieldrin (60-57-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 11P. α-Endosulfan (115-29-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 12P. β-Endosulfan (115-29-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 13P. Endosulfan Sulfate (1031-07-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 14P. Endrin (72-20-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 15P. Endrin aldehyde [illegible] | X | | | * | | | | | | 1 | mg/l | lb | | | |
| [illegible] | X | | | * | | | | | | 1 | mg/l | lb | | | |

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EPA I.D. NUMBER (copy from Item 1 of Form 1): LA0003301/WP1561

OUTFALL NUMBER: 311

Form Approved OMB No. 2040 0086 Approval expires 7-31-88

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TREATABLE | b. PRESENT | c. 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 – PESTICIDES** (continued) | | | | | | | | | | | | | | | |
| 17P. Heptachlor Epoxide (1024 57-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 18P. PCB-1242 (53469-21-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 19P. PCB-1254 (11097-69-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 20P. PCB 1221 (11104-28-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 21P. PCB-1232 (11141-16-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 22P. PCB-1248 (12672-29-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 23P. PCB-1260 (11096-82-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 24P. PCB-1016 (12674-11-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 25P. Toxaphene (8001-35-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| Total Kjeldahl Nitrogen | X | | | | | | | | | 1 | mg/l | lb | | | |

PAGE V-9

* Not found at quantitation limits

** Not applicable, internal outfall

*** Not applicable, Division canal pH system

Internal Outfall: 311

EPA ID Number (copy from page 1 of Form 1): LA0003301/WP1561

Form Approved OMB No. 2040-0086
Approval expires 5-31-92

**VII. Discharge Information** *(Continued from page 3 of Form 2F)*

**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.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| Oil and Grease | Internal Outfall 311 flows continuously. No 2F testing was done. Please | | | | | |
| Biochemical Oxygen Demand (BOD5) | refer to 2C data for internal outfall 311. The unanswered portions of thi | | | | | |
| Chemical Oxygen Demand (COD) | form are not applicable. | | | | | |
| Total Suspended Solids (TSS) | | | | | | |
| Total Kjeldahl Nitrogen | | | | | | |
| Nitrate plus Nitrite Nitrogen | | | | | | |
| Total Phosphorus | | | | | | |
| pH | Minimum | Maximum | Minimum | Maximum | | |

**Part B** - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater if the facility is operating under an existing NPDES permit. Complete one table for each outfall. See the instructions for additional details and requirements.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow-weighted composite sample.

| 1. Date of Storm Event | 2. Duration of Storm (in minutes) | 3. Total rainfall during storm event (in inches) | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event (gallons/minute or specify units) | 6. Total flow from rain event (gallons or specify units) | 7. Season sample was taken | 8. Form of precipitation (rainfall, snowmelt) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

9. Provide a description of the method of flow measurement or estimate.

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | QUANTITATION LIMIT (MG/L) | METHOD |
|---|---|---|
| CYANIDE | 0.01 | 412 B&D |
| BOD | 1 | 507 |
| COD | 10 | 508A |
| BORON | 0.1 | 404A |
| TOTAL KJELDAHL N2 | 1 | 420A, 417D |
| COLOR (TRUE/APPARENT) | 15 APHA | 204A |
| FOAMING AGENTS | 0.1 | 512B |
| ORGANIC NITROGEN | 1 | 420A, 417A &D |
| PHENOLS | 0.002 | 510A&B |
| FECAL COLIFORM | 1 COL/100ML | 909C |
| SULFITE (TITRIMETRIC) | 2 | 377.1 |
| ALUMINUM | 0.2 | 202.1 |
| ANTIMONY | 0.1 | 204.1 |
| ARSENIC | 0.01 | 206.2 |
| BARIUM | 0.1 | 208.1 |
| BERYLLIUM | 0.005 | 210.2 |
| CADMIUM | 0.01 | 213.2 |
| CHROMIUM | 0.01 | 218.2 |
| COBALT | 0.05 | 219.1 |
| COPPER | 0.005 | 220.2 |
| IRON | 0.03 | 236.1 |
| LEAD | 0.005 | 239.2 |
| MAGNESIUM | 0.01 | 242.1 |
| MANAGANESE | 0.01 | 243.1 |
| MERCURY | 0.0002 | 245.1 |
| MOLYBDENUM | 0.03 | 246.1 |
| NICKEL | 0.05 | 249.1 |
| SELENIUM | 0.01 | 270.2 |
| SILVER | 0.005 | 272.2 |
| THALLIUM | 0.1 | 279.2 |
| TIN | 1 | 282.1 |
| TITANUIM | 0.3 | 283.1 |
| ZINC | 0.01 | 289.1 |
| TOTAL PHOSPHORUS | 0.1 | 424C&F |
| NO2/NO3 | 0.05 | 418C |
| BROMIDE | 2 | 320.1 |
| SULFATE (TURBIDIMETRIC) | 5 | 426C |
| OIL & GREASE | 1 | 413.1 |
| RESIDUAL CHLORINE | 0.05 | ORION |
| TOTAL OXYGEN DEMAND | 10 | ASTM 325D-77 |
| TOTAL SUSPENDED SOLIDS | 1 | 160.2 |
| TOTAL ORGANIC CARBON | 2 | 415.1 |
| VOLATILE ORGANICS | 0.01 | 601, 602, 624 |
| BASE NEUTRALS | 0.01 | 625 |
| ACID PHENOLS | 0.01 | 625 |

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

## METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | LIMIT (MG/L) | METHOD |
|---|---|---|
| PESTICIDES | 0.01 | 625 |
| AMMONIA | 0.01 | 350.3 |
| SULFIDE | 0.01 | 376.1 |
| pH | 0-14 SU | 150.1 |
| TEMPERATURE | .5°C | 170.1 |
| FLUORIDES | 0.2 | 413B |

| | PCI/L | METHOD |
|---|---|---|
| **RADILOGICALS** | | |
| GROSS ALPHA | 0.1 | 703 |
| GROSS BETA | 0.10 | 703 |
| RADIUM (226) | 0.10 | 705 |
| RADIUM (228) | 0.10 | 706 |
| TOTAL RADIUM | 0.10 | 705 |

For any test value below the quantitation limit, a zero was used for any required calculation.

Please print or type in the unshaded areas only | LA0003301 WP1561 | Approval expires 3-31-92

FORM 2C NPDES — EPA

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) (1) | B. LATITUDE 1. DEG. | 2. MIN. | 3. SEC | C. LONGITUDE 1. DEG. | 2. MIN. | 3. SEC | D. RECEIVING WATER (name) |
|---|---|---|---|---|---|---|---|
| 321 | 30 | 19 | 0 | 91 | 14 | 15 | MISSISSIPPI RIVER |
| 331 | 30 | 19 | 15 | 91 | 14 | 0 | MISSISSIPPI RIVER |
| 333 | 30 | 19 | 0 | 91 | 14 | 0 | MISSISSIPPI RIVER |

(1) INTERNAL OUTFALLS

## 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 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. OUTFALL NO. (list) | 2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (list) | b. AVERAGE FLOW (include units) | 3. TREATMENT a. DESCRIPTION | b. LIST CODES FROM TABLE 2C-1 | |
|---|---|---|---|---|---|
| 321 | OTCW* | 32.16 | DISCHARGE TO SURFACE | 4 | A |
| | PROCESS WASTE WATER | 0.99 | DISCHARGE TO SURFACE | 4 | A |
| | AIR CONDITIONER'S (A/C'S) | | | | |
| | OTCW | 0.34 | DISCHARGE TO SURFACE | 4 | A |
| | SCRUBBER EFFLUENT | 0.15 | DECHLORINATION | 2 | E |
| | CLARIFIER UNDERFLOW | 0.09 | TSS REDUCTION | X | X |
| | MAINTENANCE | 0.05 | DISCHARGE TO SURFACE | 4 | A |
| | SAFETY SHOWERS | 0.03 | DISCHARGE TO SURFACE | 4 | A |
| | COOLING TOWER BLOWDOWN | 0.02 | DISCHARGE TO SURFACE | 4 | A |
| | SPENT ACID | 0.002 | PH NEUTRALIZATION | 2 | K |
| | STORMWATER | 0.001 | DISCHARGE TO SURFACE | 4 | A |
| 331 | RECTIFIER OTCW | 5.55 | DISCHARGE TO SURFACE | 4 | A |
| | AIR CONDITIONER'S OTCW | 0.07 | DISCHARGE TO SURFACE | 4 | A |
| | CELL SEWER (OVERFLOW) | 0.002 | DISCHARGE TO SURFACE | 4 | A |
| | STORMWATER | 0.0004 | DISCHARGE TO SURFACE | 4 | A |
| 333 | AIR COMPRESSOR OTCW(OVERFLOW) | 0.02 | DISCHARAGE TO SURFACE | 4 | A |
| | CAR WASH | 0.01 | DISCHARGE TO SURFACE | 4 | A |
| | STORMWATER | 0.0001 | DISHCARGE TO SURFACE | 4 | A |
| | NOTE: SEE ATTACHMENT 1 FOR TREATMENT UNIT DESCRIPTIONS | | | | |
| | *OTCW - IS NON-CONTACT ONCE THROUGH COOLING WATER | | | | |

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

[X] YES (complete the following table) [ ] NO (go to Section III)

| 1. OUTFALL NUMBER (list) | 2. OPERATION(s) CONTRIBUTING FLOW (list) | 3. FREQUENCY a. DAYS PER WEEK (specify average) | 3. FREQUENCY b. MONTHS PER YEAR (specify average) | 4. FLOW a. FLOW RATE (in mgd) 1. LONG TERM AVERAGE | 4. FLOW a. FLOW RATE (in mgd) 2. MAXIMUM DAILY | 4. FLOW b. TOTAL VOLUME (specify with units) 1. LONG TERM AVERAGE | 4. FLOW b. TOTAL VOLUME (specify with units) 2. MAXIMUM DAILY | 5. [illegible] |
|---|---|---|---|---|---|---|---|---|
| 331 | CELL SEWER OVERFLOW | 0.29 | 12 | 0.002 | 0.300 | 0.900 MG/YEAR | 1.500 MG/YEAR | 15 |

## III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

[X] YES (complete Item III-B) [ ] NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

[X] YES (complete Item III-C) [ ] NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| 1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. (specify) | 2. AFFECTED OUTFALLS (list outfall numbers) |
|---|---|---|---|
| SEE PRODUCTION NUMBERS UNDER SEPARATE COVER. | | | 321, Caustic |

**DOW CONFIDENTIAL BUSINESS INFORMATION 40 CFR 2.201-2.215**

SEE ATTACHMENT 2 FOR FUTURE PROJECTS THAT AFFECT PRODUCTION

## IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders and grant or loan conditions.

[ ] YES (complete the following table) [X] NO (go to Item IV-B)

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS a. NO. | 2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE a. REQUIRED | 4. FINAL COMPLIANCE DATE b. PROJECTED |
|---|---|---|---|---|---|
| | | | | | |

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your planned schedules for construction. [ ] MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

 CONTINUE ON PAGE

CONTINUED FROM PAGE 2 LA0003301 WP1561

## 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 |
|---|---|---|---|
| SEE ATTACHMENT 3 FOR POTENTIAL POLLUTANTS FROM TABLE 2C-3 | | | |

## VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

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

SEE ATTACHMENT 4 FOR POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

## VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

X YES (identify the tests and describe their purposes below) ___ NO (go to Section VIII)

**SEE ATTACHMENT 5 FOR BIOLOGICAL TOXICITY TESTING DATA**

## VIII CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

X YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below) ___ NO (go to Section IX)

| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS |
|---|---|---|---|
| **SEE ATTACHMENT 6 FOR CONTRACT ANALYSIS INFORMATION** | | | |

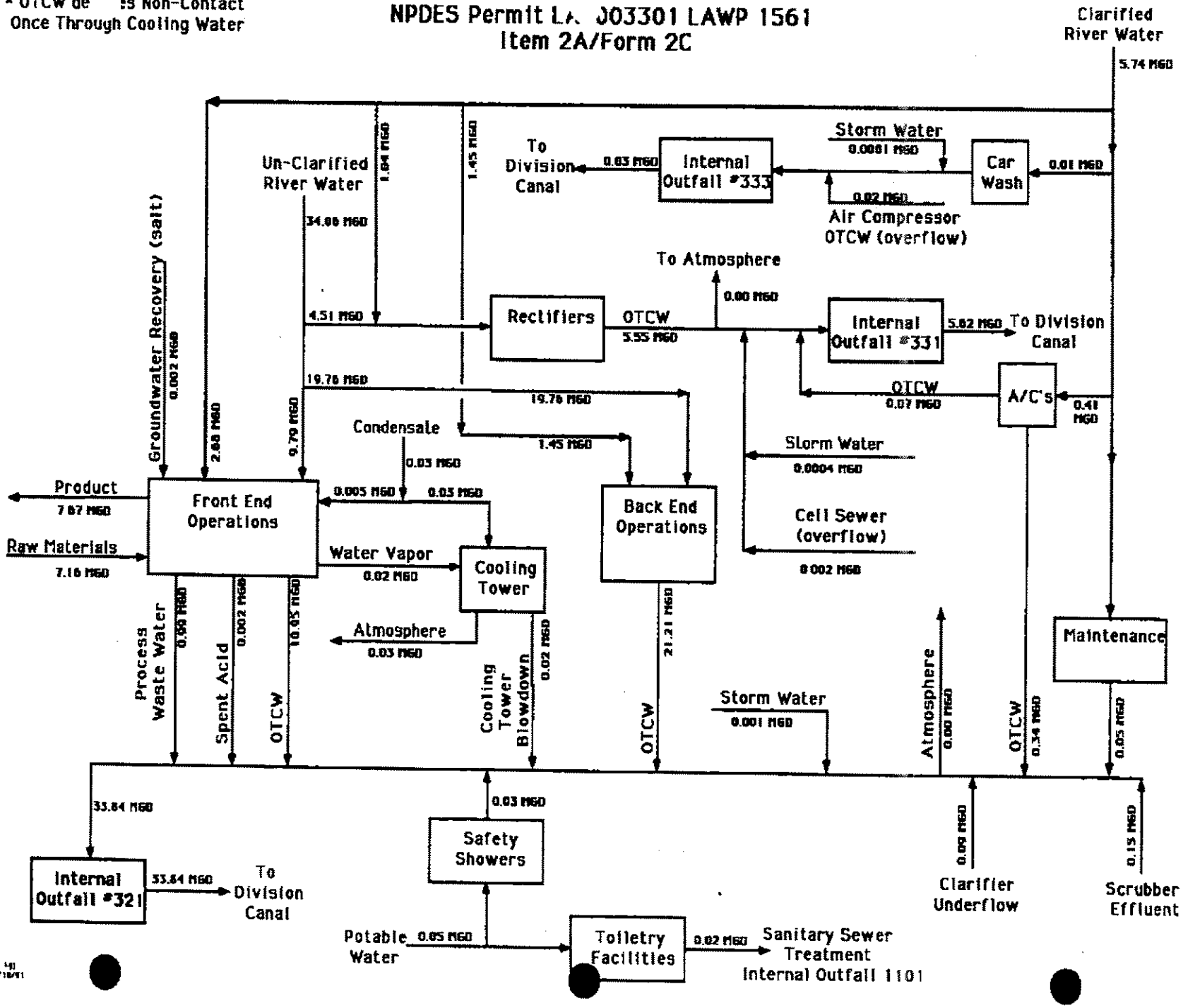
## IX. CERTIFICATION

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

| A. NAME & OFFICIAL TITLE (type or print) | B. PHONE NO. (area code & no.) |
|---|---|
| L. D. ADCOCK, GENERAL MANAGER | (504) 389-8222 |
| C. SIGNATURE: L D Adcock | D. DATE SIGNED: 10/30/91 |

* OTCW de ss Non-Contact
Once Through Cooling Water

# Chlorine 1
# NPDES Permit LA 003301 LAWP 1561
## Item 2A/Form 2C




LDEQ-RDMS Document 254100, Page 102 of 306

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 1**
**Item IIB/Form 2C**

## Treatment Unit Descriptions:

### Clarifier Underflow:

Treatment:

The clarifier underflow is treated with hydrochloric acid for Total Suspended Solids (TSS). This treatment is done in a tank (T-13).

Size: 10'H x 5'1"D = 203 cu.ft. = 1,520 gallons

Flowrate:

A) Maximum: 0.09 MGD (9/90 averaged daily data)
B) Typical: 0.06 MGD (averaged from 7/90-6/91)

Retention Time:

A) Maximum: 25 hours
B) Typical: 18 minutes

During process upsets, two tanks (T-15A and T-15B) can be used to add retention time to this treatment process. Each of these tanks hold 31,728 gallons for a total of 63,456 gallons. Dividing the typical flowrate of 0.06 MGD into 63,456 gallons gives a retention time of 25 hours.

Typically, T-13 operates at 50% level (760 gallons). Again dividing by the typical flowrate of 0.06 MGD translates into a retention time of 18 minutes.



kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 1**
**Item II.B./Form 2C**

**Scrubber Effluent:**

Treatment:

Scrubber Effluent is treated with sodium thiosulfate for Total Residual Chlorine (TRC). This treatment is accomplished by adding a sodium thiosulfate to the discharge of two tanks (T-1A and T-1B).

Size: 31.5'H x 57'D x 2 tanks = 160,761 cu.ft. = 1.20 MG

Flowrate:

A) Maximum: 0.150 MGD (10/90 averaged daily data)
B) Typical: 0.068 MGD (9/90 to 6/91 average))

Retention Time:

A) Maximum: 17.6 days
B) Typical: 5.3 days

Dividing the typical flowrate of 0.068 MGD into 1.20 MG gives a retention time of 17.6 days.

Typically, the T-1's operate at 30% level (0.36 MG). Again dividing by the typical flowrate of 0.068 MGD translates into a retention time of 5.3 days.



kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 1**
**Item II.B./Form 2C**

**Spent Acid:**

Treatment:

Spent acid is treated by an alkaline waste stream. The Spent Acid is retained in a tank (T-21) and discharged at a rate to maintain pH control of internal outfall 321.

Size: 21'9'H x 8'10"D = 1,333 cu.ft. = 9,970 gallons = 0.010 MG

Flowrate:

A) Maximum: 0.002 MGD
B) Typical: 0.002 MGD

Retention Time:

A) Maximum: 5.0 days
B) Typical: 2.5 days

Dividing the typical flowrate of 0.002 MGD into 0.010 MG gives a retention time of 5 days.

Typically, T-21 operates at 50% level (0.005 MG). Again dividing by the typical flowrate of 0.002 MGD translates into a retention time of 2.5 days.



kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 1**
**Item II.B./Form 2C**

**Solid Waste:** (continuation of treatment unit descriptions)

No solid or hazardous wastes are generated at the Clarifier Underflow, Scrubber Effluent, or Spent Acid treatment units.



kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 2**
**Item III.C./Form 2C**

**Future Projects that Affect Production:**

Through various debottlenecking projects and reliability projects planned at the Chlorine Plant, the production capabilities on a daily and an average daily basis are expected to increase before the next water permit. Debottlenecking projects are expected to be completed by 4th Quarter 1995.

kgj 10/4/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 3**
**Item V.D/Form 2C**

**Potential Pollutants from Table 2C-3:**

| 1. Pollutant | 2. Source |
|---|---|
| Asbestos | Materials of Construction |
| Phosgene | Has been present in Chlorine Gas. |
| Strontium | Is present in Raw Brine. |

kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**
**Attachment 4**
**Item VI/Form 2C**

**Potential Discharges Not Covered By Analysis:**

| Chemical | CAS Number | Use |
|---|---|---|
| Chromium | 7440-47-3 | by product |
| Copper | 7440-50-8 | Material of Construction |
| Lead *(see note 1)* | 7439-92-1 | Material of Construction |
| Nickel | 7440-02-0 | Material of Construction |
| Zinc | 7440-66-6 | Material of Construction |
| Benzene | 71-43-2 | by product |
| Bromoform | 75-25-2 | by product |
| Carbon Tetrachloride | 56-23-5 | Raw Material (dilutant) |
| Chlorobenzene | 108-90-7 | by product |
| Chlorodibromomethane | 124-48-1 | by product |
| Chloroform | 67-66-3 | by product |
| Dichlorobromomethane | 75-27-4 | by product |
| Dichlorodifluoromethane | 75-71-8 | Raw Material (coolant) |
| 1,1- Dichloroethane | 75-34-3 | by product |
| 1,2- Dichloroethane | 107-06-2 | by product |

*note 1: Lead has only been present in the weekly metals sample once from 1/90 to 9/91.*



kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**
**Attachment 4**
**Item VI/Form 2C**

| | | |
|---|---|---|
| Methyl Chloride | 74-87-3 | by product |
| Methylene Chloride | 75-09-2 | by product |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | by product |
| Tetrachloroethylene | 127-18-4 | by product |
| 1,1,1-Trichloroethane (Chlorothene) | 71-55-6 | Raw Material (solvent) by product |
| Trichloroethylene | 79-01-6 | by product |
| Hexachlorobenzene | 118-74-1 | by product |
| Hexachlorobutadiene | 87-68-3 | by product |
| Hexachloroethane | 67-72-1 | by product |



kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 5**
**Item VII/Form 2C**

## Biological Toxicity Testing Data

Quarterly acute monitoring was done for a 2 year period on internal outfall 321 in accordance with Part III (item 6 and 12) of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP 1561. Internal outfall 321 is discharged to the Lousiana division canal. Organism used for the testing was Daphnis sp. Results for the acute biomonitoring were reported on a quarterly basis from 1987 until early 1989.

No biological toxicity testing has been performed on internal outfall 331 and internal outfall 333.

Quarterly acute biomonitoring was done for a 2 year period on final outfall 001 in accordance with Part III.6 of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP 1561. The receiving stream for final outfall 001 is the Mississippi River. Organism used for testing was Daphnia sp. Results for the acute biomonitoring were reported on a quarterly basis from 1987 until early 1989.

Chronic testing was done on final outfall 001 in January and February 1990. The receiving stream for final outfall 001 is the Mississppi River. Organisms used were Ceriodaphnis dubia and Pimephales promelas. Results have been reported to the state.

kgj 9/30/91

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment 6**
**Item VIII/Form C**

## Contract Analysis Information

**A,B,C. Name, Address, Telephone**

West Paine Laboratories, Inc., 7979 GSRI Avenue, Baton Rouge, La 78020, (504) 769-4900

**D. Pollutants Analyzed**

BOD,COD, total phenols, total cyanide, sulfates, sulfite, total phosphorous, total kjedahl nitrogen, fecal coliform, fluoride, total organic nitrogen as N, surfactants, total radium, total radium 226, total aluminum, total barium, total boron, total cobalt, total iron, total magnesium, total molybdenum, total manganese, total tin, total titanium, total antimony, total arsenic, total beryllium, total chromium, total copper, total lead, total mercury, total nickel, total selenium, total silver, total thallium, total zinc, color.

**A,B,C. Name, Address, Telephone**

No longer in existence.
Gulf Engineering and Consultants, 535 Main Street, Baton Rouge, LA 70802

**D. Pollutants Analyzed**

Acute Monitoring

**A,B,C. Name, Address, Telephone**

Analytical and Environmental Testing, 1717 Seabord Drive, Suite 101, Baton Rouge, LA 70810, (504) 769-1930

**D. Pollutants Analyzed**

Chronic biomonitoring

kgj 9/30/91

Please print or type in the unshaded areas only

EPA ID Number (copy from item I of Form 1) LA0003301 WP1561

Form Approved OMB No 2040-0086
Approval expires 5-31-92

Form 2F NPDES

EPA

United States Environmental Protection Agency
Washington, DC 20460

# Application for Permit To Discharge Stormwater Discharges Associated with Industrial Activity

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 28.5 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington DC 20503

## 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) |
|---|---|---|---|---|---|---|---|
| 321 | 30 | 19 | 0 | 91 | 14 | 15 | MISSISSIPPI RIVER |
| 331 | 30 | 19 | 15 | 91 | 14 | 0 | MISSISSIPPI RIVER |
| *332 | 30 | 19 | 0 | 91 | 14 | 15 | MISSISSIPPI RIVER |
| *333 | 30 | 19 | 0 | 91 | 14 | 15 | MISSISSIPPI RIVER |
| | | | | | | | |
| | | | | | | | |
| *NEWLY DEFINED INTERNAL STORMWATER OUTFALLS | | | | | | | |
| | | | | | | | |
| (I) Internal Outfalls | | | | | | | |
| | | | | | | | |

## II. Improvements

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

| 1. Identification of Conditions, Agreements, Etc. | 2. Affected Outfalls: number | 2. Affected Outfalls: source of discharge | 3. Brief Description of Project | 4. Final Compliance Date: a. req | 4. Final Compliance Date: b. proj |
|---|---|---|---|---|---|
| NOT APPLICABLE | | | | | |
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B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

## III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall, paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

 Continue on Page 2

Continued from Page 2

EPA ID Number (copy from Item I of Form 1)
LA0003301 WP1561

## VII. Discharge Information

A,B,C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - Is any pollutant listed in Table 2F-2 a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

[X] Yes (list all such pollutants below) [ ] No (go to Section VIII)

SEE ATTACHMENT C FOR POTENTIAL POLLUTANTS FROM TABLE 2F-2, 2F-3, AND 2F-4.

## VIII. Biological Toxicity Testing Data

[X] Yes (list results below) [ ] No (go to Section IX)

SEE ATTACHMENT D FOR BIOLOGICAL TOXICITY TESTING DATA

## IX. Contract Analysis Information

[X] Yes [ ] No (go to Section X)

| A. Name | B. Address | C. Area Code & Phone No | D. Pollutants Analyzed |
|---|---|---|---|
| SEE ATTACHMENT E FOR CONTRACT ANALYSIS INFORMATION | | | |

## X. Certification

| A. Name & Official Title (type or print) | B. Area Code and Phone No |
|---|---|
| L. D. ADCOCK, GENERAL MANAGER | (504) 389-8222 |
| C. Signature: L D Adcock | D. Date Signed: 10/30/91 |

# CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

L D Adcock

L. D. Adcock, General Manager
504/389-8222

Date 10/30/91

Form 2F

# Reference Sheet

**REF+88830**

08/17/00 12:18 PM

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

**SIGNIFICANT MATERIALS:**

There are several best management practices in use in conjunction with non-structural controls in the plant. Plant personnel are trained on these control procedures. These practices are available in complete written text form and are readily accessed by all plant personnel.

Key Best Management Practices (BMP) Employed for Listed Significant Materials:

1. SPC (spill prevention and control for hazardous materials)
2. SPCC (spill prevention control and countermeasures for oils and hazardous materials)
3. Diking
4. Written Procedures
5. Evacuation and treatment of contaminated soil.
6. Roofing
7. Equipment isolation checks

See section on non-structural controls for additional best management practices, controls, etc., in use in the plant.



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

Significant Materials Summary:

A. Asbestos
B. Brine
C. Carbon Dioxide
D. Carbon Tetrachloride
E. Chlorine
F. 1,1,1 Trichloroethane (Chlorothene)
G. Diesel
H. Flocculants
I. Freon
J. Gasoline
K. Chlorinated Organics
L. Hydrochloric Acid
M. Lithium Bromide
N. Lube Oil
O. Transformer Oil
P. Sodium Carbonate
Q. Sodium Hydroxide
R. Sodium Hypochlorite
S. Sodium Thiosulfate
T. Sulfuric Acid (~98%)
U. Sulfuric Acid (~65%)



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

A. Asbestos

Asbestos is present in some insulation, gaskets and in the Chlorine Cells. There is also a portable 750 gallon fiberglass tank, PT-100, used to handle wet asbestos for chlorine cell maintenance.

Form: Solid
Storage Container: in operating process units
Potential Affected internal outfalls: 321,331,333
BMP: 3,4,5,7

B. Brine

Each Brine Storage Tank holds 1,500,000 gallons. There are 2 tanks, T-4's, for a total storage capacity of 3,000,000 gallons.

Form: Liquid
Storage Containers: carbon steel tanks with epoxy liners
Potential Affected internal outfalls: 321,331,332,333
BMP: 4,7

C. Carbon Dioxide

Carbon Dioxide is stored in a 12,000 gallon tank southeast of internal outfall 331.

Form: Liquid
Storage Container: carbon steel tank
Potential Affected internal outfalls: 321,331,333
BMP: 4,7



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

D. Carbon Tetrachloride

CCl4 is stored in a 1,600 gallon tank, T-45.

Form: Liquid
Storage Container: carbon steel tank
Potential Affected internal outfalls: 321,333
BMP: 1,3,4,5,7

E. Chlorine

Chlorine is stored in two tanks. One tank, T-54, holds 430,000 gallons while the other tank, T-56, holds 317,000 gallons.

Form: Liquid (shipped in rail cars and is stored)
Gas (internal distribution)
Storage Containers: carbon steel spheres
Potential Affected internal outfalls: 321,333
BMP: 3,4,5,7

F. 1.1.1.Trichloroethane (Chlorothene)

Chlorothene is used for some maintenance cleaning jobs. It is stored in 55 gallon drums (usually 2 drums) inside the Oil Storage Area.

Form: Liquid
Storage Container: carbon steel drum
Potential Affected internal outfalls: 321,333
BMP: 3,4,5,6,7



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

G. Diesel

Diesel is stored in a 200 gallon tank west of T-54.

Form: Liquid
Storage Container: carbon steel tank
Potential Affected internal outfall: 321
BMP: 2,3,4,5,7

H. Flocculants

Flocculants are used in the Brine clarification process. It is currently stored in a 400 gallon tank east of the Chlorine Scrubber Area Diking.

Form: Liquid
Storage Container: steel tank with polyethylene liner
Potential Affected internal outfalls: 321,331,332,333
BMP: 4,5,7

I. Freon-12

Freon is stored in a 21,900 gallon tank east of T-54.

Form: Liquid
Storage Containers: carbon steel tank
Potential Affected internal outfall: 321
BMP: 4,7



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

J. Gasoline

Gasoline is stored in a 500 gallon tank southwest of the Office Building, Bldg. 2601.

Form: Liquid
Storage Container: carbon steel tank
Potential Affected internal outfall: 333
BMP: 2,3,4,5,7

K. Chlorinated Organics

Chlorinated Organics is a stream from purifying Chlorine gas. Hexachlorobenzene and Hexachlorobutadiene are contaminants that are present in this stream. It is stored in four 750 gallon tanks north of CCl4 Tank Diking.

Form: Liquid
Storage Containers: carbon steel tanks
Potential Affected internal outfalls: 321,333
BMP: 4,5,7

L. Hydrochloric Acid

11% HCl is stored in a tank, T-24 , which has a capacity of 16,600 gallons. 18% HCl is stored in a tank, T-29, which has a capacity of 20,000 gallons.

Form: Liquid
Storage Containers: T-24: carbon steel tank and rubber liner
T-29: fiberglass tank
Potential Affected internal outfalls: 321,331,333
BMP: 4,5,7



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

M. Lithium Bromide

Lithium Bromide is used in the closed loop Absorption Refrigeration Units (ARU'S) located east of V-701. There are two ARU's at the plant and each have ~50 gallons of LiBr. The solution in the ARU's contains trace amounts of chromates.

Form: Liquid
Storage Container: in operating process units
Potential Affected internal outfall: 321
BMP: 4,5,7

N. Lube Oil

Lube oil is present in compressors, pumps and the oil storage area. The oil storage area is diked and has a roof. Within the oil storage area, there are 55 gallon drums of oil and two waste oil tanks. The total volume of the two waste oil tanks is 1,300 gallons.

Form: Liquid
Storage Containers: in operating process units
carbon steel 55 gallon drums
carbon steel tanks
Potential Affected internal outfalls: 321,331,332,333
BMP: 2,3,4,5,6,7

O. Transformer Oil

Transformer oil is present in transformers and a storage tank. The transformers contain ~ 80,000 gallons. The storage tank contains 12,000 gallons.

Form: Liquid
Storage Container: carbon steel tank
Potential Affected internal outfalls: 321,331,333
BMP: 2,3,4,5,7



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

P. Sodium Carbonate

Sodium Carbonate is an intermediate stored in a 16,000 gallon tank, T-18. Na2CO3 is used in the brine treatment process.

Form: Liquid
Storage Container: carbon steel tank with rubber liner
Potential Affected internal outfalls: 321,331,332,333
BMP: 4,5,7

Q Sodium Hydroxide

NaOH (~10%) is stored in the block as a neutralization agent for Chlorine during upset conditions. There are three tanks which store NaOH. Two of these are 102,270 gallon tanks, T-250's, and are located inside the Chlorine Scrubber Area Diking. The third tank, ST-1, holds 112,000 gallons. This gives the plant a total capability of storing 316,540 gallons of NaOH.

Form: Liquid
Storage Containers: T-250's:carbon steel tank with epoxy liner
ST-1: carbon steel tank with epoxy liner
Potential Affected internal outfalls: 321,331,332,333
BMP: 3,4,5,7

R Sodium Hypochlorite

The Chlorine Plant's process waste water storage tanks, T-1's, hold a maximum of 1,200,000 gallons of liquid. The primary waste stream is Scrubber Effluent which contains NaOH, NaOCl, NaCl and water. The T-1's can also receive process diking area drainage if treatment is needed.

Form: Liquid
Storage Containers: carbon steel tanks with rubber liners
Potential Affected internal outfalls: 321,331,332,333
BMP: 3,4,5,7



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment A**
**Item IV.B./Form 2F**

S. Sodium Thiosulfate

Sodium Thiosulfate is stored in two different tanks. One tank holds 47,000 gallons, T-43, while the other tank holds 10,000 gallons, V-701.

Form: Liquid
Storage Containers: T-43: carbon steel tank
V-701: fiberglass tank
Potential Affected internal outfalls: 321,333
BMP: 3,4,5,7

T. Sulfuric Acid (~98%)

$H_2SO_4$ (98%) is stored in a tank, T-25 , which has a capacity of 23,100 gallons.

Form: Liquid
Storage Container: carbon steel tank
Potential Affected internal outfall: 321
BMP: 4,5,7

U. Sulfuric Acid (~65%)

Spent Acid (~65% Sulfuric Acid) is sent to a storage tank, T-21, which has a storage capacity of 10,000 gallons.

Form: Liquid
Storage Container: fiberglass tank
Potential Affected internal outfall: 321
BMP: 4,5,7



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment B**
**Item IV.C./Form 2F**

## NON-STRUCTURAL AND STRUCTURAL CONTROLS

**Non-Structural Controls Summary:**

A. Spill Prevention Plans
B. Employee Training/Procedures
C. Rounds/Checklists
D. Housekeeping
E. Safety, Industrial Hygiene, Incident Investigation
F. Plant Security
G. Pressure Vessel Program

### A. Spill Prevention Plans

The following spill prevention plans are in place at the Chlorine Plant:

1. Proper personnel protective equipment
2. Inspection rounds
3. Maintenance procedures
4. Spill containment
5. Spill cleanup
6. Agency notifications (DEQ)



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment B**
**Item IV.C./Form 2F**

B. Employee Training/Procedures

Classroom environmental training is conducted yearly (at a minimum) for plant operations personnel. The key points include operating and maintenance techniques to prevent spills, how to respond to discharges of hazardous materials and oils, handling and containment of waste sources, and general plant environmental topics (such as sampling, rounds, and recent developments).

Job procedures are included in the In-Plant Training (IPT) program. These procedures are available to plant personnel.

C. Rounds/Checklists

Process equipment (such as tanks, pumps and valves) are inspected once per shift (twice a day).

D. Housekeeping

Duties are divided among the four shifts. Each shift is responsible for a certain area as well as the overall housekeeping in the plant. These duties include responsibilities for inspection and corrective actions of deficiencies.

**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment B**
**Item IV.C./Form 2F**

E. Safety, Industrial Hygiene, Incident Investigation

Chlorine has a safety program that incorporates write-ups of unsafe conditions, safety meetings, contractor safety meetings, and a safety committee. The safety committee is comprised of a representative from every shift, day operations, and two technical staff members (one being a representative of plant management).

Separate components of the industrial hygiene program at the Chlorine Plant follow:
HazCom Training (including MSDS's), respirator selection and fit-testing, exposure consequences, personnel monitoring for chemical exposures, hearing conservation, a medical surveillance program, a written program for reference, and annual reports and reviews.

Spills and safety incidents are investigated and then communicated to plant personnel. The results of these investigations are communicated in monthly safety meetings and daily shift communications. The spills and incidents are logged in and are periodically reviewed to insure follow-up.

F. Plant Security

The facility is operated 24 hours a day. The Division is completely fenced in and access is limited to gates manned 24 hours a day. Boundary security is provided by plant security personnel. Also, plant personnel are trained in security measures such as proper lighting, vandalism, intruders, and bomb threats.

G. Pressure Vessel Program

Critical tanks are included in Dow's pressure vessel program and are visually inspected and thickness checked.



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment B**
**Item IV.C./Form 2F**

**Structural Controls Summary:**

A. Process Area Drainage
B. Cell Area Drainage
C. Process Waste Water Storage Diking
D. Liquid Chlorine Storage Diking
E. Chlorine Scrubber Area Diking
F. New Brine Treating Area Drainage
G. Gasoline Tank Diking
H. Diesel Tank Diking
I. Carbon Tetrachloride Tank Diking
J. Rectifier Regulator and Oil Cooler Diking
K. Miscellaneous Oil Diking
L. Oil Booms
M. Oil Storage Diking and Roofing
N. Treatment Units

A. Process Area Drainage

All the process areas drain to internal outfall 321 and internal outfall 331. See site drainage map for structural controls and drainage of internal outfalls.

B. Cell Area Drainage

The cell area is sloped and diked in such a manner to allow drainage to a common sump. Depending whether or not the water needs treatment, the cell area drainage can be sent directly to internal outfall 321 or sent to the process waste water storage tanks, T-1's. If sent to the T-1's, the cell area drainage is neutralized for any residual chlorine and discharged through internal outfall 321.



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment B**
**Item IV.C./Form 2F**

C. Process Waste Water Storage Diking

The process waste water storage tanks, T-1's, hold scrubber effluent and can contain cell area drainage. These tanks are diked and have a ring-walled foundation with a leachate detection system. The diking was designed to hold the full contents of one T-1 plus 12" of rain. The diking sump pump discharge is sent back to the T-1's or can be sent directly to internal outfall 321. This operation is conducted only by Dow personnel.

D. Liquid Chlorine Storage Diking

The diking sump pump discharges straight into internal outfall 321 after Dow personnel have checked for contamination. Any necessary "cleanup" operation is done prior to discharge.

E. Chlorine Scrubber Area Diking

Provides a common drainage point. The diking sump pump discharge is sent to the process waste water storage tanks or can be sent directly to internal outfall 321. This operation is conducted only by Dow personnel.

F. New Brine Treating Area Drainage

The south end of the Chlorine Plant contains the Brine Treating area. Brine storage tanks and clarifiers are located in this area. The grounds are sloped in such a way to provide a common drainage point. At this drainage point is a sump pump which sends the liquid to internal outfall 321.

G. Gasoline Tank Diking

The gasoline tank diking is checked by Dow personnel for contamination before discharging. If the dike contains constituents other than water, the dike contents are cleaned up with absorbent pads before discharge. If the dike contains uncontaminated water, the contents will be drained to internal outfall 333.



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment B**
**Item IV.C./Form 2F**

H. Diesel Tank Diking

The diesel tank diking is checked by Dow personnel for contamination before discharging. If the dike contains diesel, the dike contents are cleaned up with oil pads before liquid is drained to internal outfall 321.

I. Carbon Tetrachloride Tank Diking

The carbon tetrachloride tank diking is checked by Dow personnel for contamination before discharging. If the dike contains CCl4, the dike contents are cleaned up with dirt before liquid is drained to internal outfall 321.

J. Rectifier Regulator and Oil Cooler Diking

Handled as per SPCC plan. Uncontaminated stormwater in dike discharges through internal outfall 331.

K. Miscellaneous Oil Diking

Handled as per SPCC plan. Dike contents go to internal outfall 321 or internal outfall 331.

L. Oil Booms

Oil booms are placed in the trenches for internal outfall 321 and internal outfall 331. The oil booms are inspected every shift (12 hours) and replaced before saturation.

M. Oil Storage Diking and Roofing

The roofing over the oil storage area prevents rainwater from coming into contact with the oil drums. This substantially reduces corrosion of oil drums. There is also diking to prevent water from coming into this area or for oil to drain out. There is no drain for this dike.

N. Treatment Units

Refer to Treatment Units, Item II.B./Form 2C for details.



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# Chlorine Plant
# NPDES LA0003301/LWPDS 1561
## Attachment C
## Item VII.E./Form 2F

**Potential Pollutants from Table 2F-2, 2F-3, and 2F-4:**

Note: Mat'l of Constr. is Material of Construction.

| Pollutant | Source | Affected Internal Outfall |
|---|---|---|
| Bromide | by product | 321,331,332,333 |
| Chlorine, Total Residual | intermediate by product | 321,331,332,333 |
| Nitrogen, Total Kjedahl | by product | 321,333 |
| Oil and Grease | Raw Material by product | 321,331,332,333 |
| Sulfate | by product | 321,331,332,333 |
| Sulfide | by product | 321,331,332,333 |
| Sulfite | by product | 321,331,332,333 |
| Surfactants | Raw Material | 321,331,332,333 |
| Aluminum, Total | Mat'l of Constr. by product | 321,331,332,333 |
| Barium, Total | by product | 321,331,332,333 |
| Iron, Total | Mat'l of Constr. by product | 321,331,332,333 |
| Magnesium, Total | by product | 321,331,332,333 |
| Manganese, Total | by product | 321,331,332,333 |



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment C**
**Item VII.E./Form 2F**

| Pollutant | Source | Affected Internal Outfall |
|---|---|---|
| Titanium, Total | Mat'l of Constr. | 321,333 |
| Chromium | Mat'l of Constr. by product | 321,331,332,333 |
| Copper | Mat'l of Constr. by product | 321,331,332,333 |
| Lead *(see note 1)* | Mat'l of Constr. | 321,331,332,333 |
| Nickel | Mat'l of Constr. by product | 321,331,332,333 |
| Zinc | Mat'l of Constr. | 321,331,332,333 |
| Benzene | by product | 321,333 |
| Carbon Tetrachloride | Raw Material | 321,333 |
| Chlorobenzene | by product | 321,333 |
| Chlorodibromomethane | by product | 321,333 |
| Chloroform | by product | 321,333 |
| DiChlorobromomethane | by product | 321,333 |

*note 1: Lead has only been present in the weekly metals sample once from 1/90 to 9/91.*



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**Chlorine Plant**
**NPDES LA0003301/LWPDS 1561**

**Attachment C**
**Item VII.E./Form 2F**

| Pollutant | Source | Affected Internal Outfall |
|---|---|---|
| 1,1-Dichloroethane | by product | 321,333 |
| 1,2-Dichloroethane | by product | 321,333 |
| Methyl Chloride | by product | 321,333 |
| Methylene Chloride | by product | 321,333 |
| 1,1,2,2-Tetrachloroethane | by product | 321,333 |
| Tetrachloroethylene | by product | 321,333 |
| 1,1,1-Trichloroethane | Raw Material<br>by product | 321,333 |
| Trichloroethylene | by product | 321,333 |
| Hexachlorobenzene | by product | 321,333 |
| Hexachlorobutadiene | by product | 321,333 |
| Hexachloroethane | by product | 321,333 |
| Asbestos | Mat'l of Constr. | 321,331,332,333 |
| Phosgene | by product | 321,331,332,333 |
| Strontium | by product | 321,331,332,333 |



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# Chlorine Plant
# NPDES LA0003301/LWPDS 1561

## Attachment D
## Item VIII/Form 2F

### Biological Toxicity Testing Data

Quarterly acute monitoring was done for a 2 year period on internal outfall 321 in accordance with Part III (item 6 and 12) of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP 1561. Internal outfall 321 is discharged to the Lousiana division canal. Organism used for the testing was Daphnis sp. Results for the acute biomonitoring were reported on a quarterly basis from 1987 until early 1989.

No biological toxicity testing has been performed on internal outfall 331 and internal outfall 333.

Quarterly acute biomonitoring was done for a 2 year period on final outfall 001 in accordance with Part III.6 of our NPDES Permit No. LA 0003301 and Part III.10 of State Permit WP 1561. The receiving stream for final outfall 001 is the Mississippi River. Organism used for testing was Daphnia sp. Results for the acute biomonitoring were reported on a quarterly basis from 1987 until early 1989.

Chronic testing was done on final outfall 001 in January and February 1990. The receiving stream for final outfall 001 is the Mississppi River. Organisms used were Ceriodaphnis dubia and Pimephales promelas. Results have been reported to the state.

kgj 9/30/91

# Chlorine Plant
# NPDES LA0003301/LWPDS 1561
## Attachment E
## Item IX/Form 2F

### Contract Analysis Information

**A,B,C. Name, Address, Telephone**

West Paine Laboratories, Inc., 7979 GSRI Avenue, Baton Rouge, La 78020, (504) 769-4900

**D. Pollutants Analyzed**

BOD,COD, total phenols, total cyanide, sulfates, sulfite, total phosphorous, total kjedahl nitrogen, fecal coliform, fluoride, total organic nitrogen as N, surfactants, total radium, total radium 226, total aluminum, total barium, total boron, total cobalt, total iron, total magnesium, total molybdenum, total manganese, total tin, total titanium, total antimony, total arsenic, total beryllium, total chromium, total copper, total lead, total mercury, total nickel, total selenium, total silver, total thallium, total zinc, color.

**A,B,C. Name, Address, Telephone**

No longer in existence.
Gulf Engineering and Consultants, 535 Main Street, Baton Rouge, LA 70802

**D. Pollutants Analyzed**

Acute Monitoring

**A,B,C. Name, Address, Telephone**

Analytical and Environmental Testing, 1717 Seabord Drive, Suite 101, Baton Rouge, LA 70810, (504) 769-1930

**D. Pollutants Analyzed**

Chronic biomonitoring

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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): LA0003301/WP1561

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

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

OUTFALL NO: 321

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 | (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 | 3. UNITS (specify if blank) a. CONCENTRATION | b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand (BOD) | 20 | 1718 | | | | | 1 | mg/l | lb | | | |
| b. Chemical Oxygen Demand (COD) | 54 | 4639 | inteference believed present | | | | 1 | mg/l | lb | | | |
| c. Total Organic Carbon (TOC) | 4 | 344 | | | | | 1 | mg/l | lb | | | |
| d. Total Suspended Solids (TSS) | 490 | 3180 | 139 | 1263 | 108 | 589 | 273 | mg/l | lb | TSS is the sum of TSS discharge at (a) cell area drainage and cell washes and (b) neutralization system prior to co-mingling with OTCW as required by our present NPDES permit. | | |
| e. Ammonia (as N) | * | | | | | | 1 | mg/l | lb | | | |
| f. Flow | VALUE 43.8 | | VALUE 33.8 | | VALUE 33.8 | | 30 | MGD | | 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 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. 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 | b. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Bromide (24959-67-9) | X | | * | | | | | | 1 | mg/l | lb | | | |
| b. Chlorine, Total Residual | X | | * | | | | | | 30 | mg/l | lb | | | |
| c. Color | | X | | | | | | | | | | | | |
| d. Fecal Coliform | | X | | | | | | | | | | | | |
| e. Fluoride (16984-48-8) | | X | | | | | | | | | | | | |
| f. Nitrate Nitrate (as N) | X | | 0.34 | 45.9 | | | | | 1 | mg/l | lb | | | |

ITEM V-B CONTINUED FROM FRONT

| 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 (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (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 (optional) a. LONG TERM AVERAGE VALUE (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. Nitrogen, Total Organic (as N) | | X | | | | | | | | | | | | |
| h. Oil and Grease | X | | * | | | | | | 1 | mg/l | lb | | | |
| i. Phosphorus (as P), Total (7723-14-0) | X | | 0.1 | 16.4 | | | | | 1 | mg/l | lb | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | X | | | | | | | | | | | | |
| (2) Beta, Total | | X | | | | | | | | | | | | |
| (3) Radium, Total | | X | | | | | | | | | | | | |
| (4) Radium 226, Total | | X | | | | | | | | | | | | |
| k. Sulfate (as $SO_4$) (14808-79-8) | X | | 280 | 46003 | | | | | 1 | mg/l | lb | | | |
| l. Sulfide (as S) | X | | 5.8 | 498 | | | | | 1 | mg/l | lb | | | |
| m. Sulfite (as $SO_3$) (14265-45-3) | X | | 28 | 4297 | | | | | 1 | mg/l | lb | | | |
| n. Surfactants | X | | 0.2 | 17 | | | | | 1 | mg/l | lb | | | |
| o. Aluminum, Total (7429-90-5) | | X | | | | | | | | | | | | |
| p. Barium, Total (7440-39-3) | X | | 0.45 | 39 | | | | | 1 | mg/l | lb | | | |
| q. Boron, Total (7440-42-8) | | X | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48-4) | | X | | | | | | | | | | | | |
| s. Iron, Total (7439-89-6) | X | | 2.6 | 223 | | | | | 1 | mg/l | lb | | | |
| t. Magnesium, Total (7439-95-4) | X | | 24.0 | 2062 | | | | | 1 | mg/l | lb | | | |
| u. Molybdenum, Total (7439-98-7) | | X | | | | | | | | | | | | |
| v. Manganese, Total (7439-96-5) | | X | | | | | | | | | | | | |
| w. Tin, Total (7440-31-5) | | X | | | | | | | | | | | | |
| x. Titanium, Total (7440-32-6) | X | | 0.09 | 7.7 | | | | | 1 | mg/l | lb | | | |



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| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| LA000 3301/WP1561 | 321 |

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE 3 OF FORM 2-C

**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, nonprocess wastewater outfalls, and nonrequired 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 is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 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 AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. 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 | | | * | | | | | | 1 | mg/l | lb | | | |
| 2M. Arsenic, Total (7440-38-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3M. Beryllium, Total, 7440-41-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4M. Cadmium, Total (7440-43-9) | X | | | 0.02 | 1.7 | | | | | 1 | mg/l | lb | | | |
| 5M. Chromium, Total (7440-47-3) | X | | | 0.03 | 2.6 | | | | | 1 | mg/l | lb | | | |
| 6M. Copper, Total (7440-50-8) | X | | | 0.04 | 3.4 | 0.04 | 3.4 | 0.008 | 0.7 | 5 | mg/l | lb | | | |
| 7M. Lead, Total (7439-92-1) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 8M. Mercury, Total (7439-97-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 9M. Nickel, Total (7440-02-0) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 10M. Selenium, Total (7782-49-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 11M. Silver, Total (7440-22-4) | X | | | 0.02 | 1.7 | | | | | 1 | mg/l | lb | | | |
| 12M. Thallium, Total (7440-28-0) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 13M. Zinc, Total (7440-66-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 14M. Cyanide, Total (57-12-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 15M. Phenols, Total | X | | | 0.013 | 1.1 | | | | | 1 | mg/l | lb | | | |
| **DIOXIN** | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1746-01-6) | | | X | DESCRIBE RESULTS | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" a. TEST INCLUDED | 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** | | | | | | | | | | | | | | | |
| 1V. Acrolein (107-02-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 2V. Acrylonitrile (107-13-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3V. Benzene (71-43-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4V. Bis (Chloromethyl) Ether (542-88-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 5V. Bromoform (75-25-2) | X | | | 0.005 | 0.4 | 0.005 | 0.4 | 0.001 | 0.08 | 5 | mg/l | lb | | | |
| 6V. Carbon Tetrachloride (56-23-5) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 7V. Chlorobenzene (108-90-7) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 8V. Chlorodibromomethane (124-48-1) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 9V. Chloroethane (75-00-3) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 10V. 2-Chloroethylvinyl Ether (110-75-8) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 11V. Chloroform (67-66-3) | X | | | 0.008 | 1.8 | 0.008 | 0.6 | 0.003 | 0.5 | 5 | mg/l | lb | | | |
| 12V. Dichlorobromomethane (75-27-4) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 13V. Dichlorodifluoromethane (75-71-8) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 14V. 1,1-Dichloroethane (75-34-3) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 15V. 1,2-Dichloroethane (107-06-2) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 16V. 1,1 Dichloroethylene (75 35-4) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 17V 1,2 Dichloropropane (78 87-5) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 18V 1,3-Dichloropropylene (542-75-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 19V Ethylbenzene (100 41 4) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 20V Methyl Bromide (74 83 9) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 21V. Methyl Chloride (74 8[illegible] | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |

CONTINUED F PAGE V-4

EPA I.D. NUMBER (copy from Item 1 of Form 1): LA0003301/ WP1561

OUTFALL NUMBER: 321

Form Approved
OMB No 2040 0086
Approval expires 7 31 8.

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TOXIC POLLUTANT 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 | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 23V. 1,1,2,2-Tetrachloroethane (79-34-5) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 24V. Tetrachloroethylene (127-18-4) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 25V. Toluene (108-88-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 26V. 1,2-Trans-Dichloroethylene (156-60-5) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 27V. 1,1,1-Trichloroethane (71-55-6) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 28V. 1,1,2-Trichloroethane (79-00-5) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 29V. Trichloroethylene (79-01-6) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| 30V. Trichlorofluoromethane (75-69-4) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 31V. Vinyl Chloride (75-01-4) | X | | | * | * | * | * | * | * | 5 | mg/l | lb | | | |
| **GC/MS FRACTION – ACID COMPOUNDS** | | | | | | | | | | | | | | | |
| 1A. 2 Chlorophenol (95-57 8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 2A 2,4-Dichlorophenol (120-83 2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3A. 2,4-Dimethylphenol (105-67-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4A. 4,6-Dinitro O Cresol (534-52-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 5A. 2,4-Dinitrophenol (51-28 5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 6A. 2 Nitrophenol (88-75-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 7A. 4-Nitrophenol (100 02-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 8A. P Chloro-M Cresol (59 50-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 9A Pentachlorophenol (87 86 5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 10A Phenol (108 95 2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 11A 2,4,6 Trichlorophenol (88-06-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |

CONTINUED FROM THE FRONT

| 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 | | 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 – BASE/NEUTRAL COMPOUNDS** | | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 2B. Acenaphtylene (208-96-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 3B. Anthracene (120-12-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 4B. Benzidine (92-87-5) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 5B. Benzo (a) Anthracene (56-55-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 6B. Benzo (a) Pyrene (50-32-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 7B. 3,4-Benzo-fluoranthene (205-99-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 8B. Benzo (ghi) Perylene (191-24-2) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 9B. Benzo (k) Fluoranthene (207-08-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 10B. Bis (2-Chloro-ethoxy) Methane (111-91-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 11B. Bis (2-Chloro-ethyl) Ether (111-44-4) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 12B. Bis (2-Chloro-propyl) Ether (102-60-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 14B. 4-Bromo-phenyl Phenyl Ether (101-55-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 16B. 2-Chloro-naphthalene (91-58-7) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 18B. Chrysene (218-01-9) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 19B. Dibenzo (a,h) Anthracene (53-70-3) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 20B. 1,2 Dichloro benzene (95-50-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 21B. 1,3 Dichlo[illegible] benzene (54[illegible] | X | | | * | | | | | | 1 | mg/l | lb | | | |



CONTINUE ON PAGE V-

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1): LA0003301/WP1561

OUTFALL NUMBER: 321

Form Approved
OMB No. 2040-0086
Approval expires 7-31-86

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

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. PRESENT | b. ABSENT | 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 – BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 43B. N-Nitrosodiphenylamine (86-30-6) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 44B. Phenanthrene (85-01-8) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 45B. Pyrene (129 00-0) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| 46B. 1,2,4 - Trichlorobenzene (120-82-1) | X | | | * | | | | | | 1 | mg/l | lb | | | |
| **GC/MS FRACTION – PESTICIDES** | | | | | | | | | | | | | | | |
| 1P. Aldrin (309-00 2) | | | X | | | | | | | | | | | | |
| 2P. α BHC (319-84-6) | | | X | | | | | | | | | | | | |
| 3P. β-BHC (319 85-7) | | | X | | | | | | | | | | | | |
| 4P. γ-BHC (58-89-9) | | | X | | | | | | | | | | | | |
| 5P. δ-BHC (319-86 8) | | | X | | | | | | | | | | | | |
| 6P. Chlordane (57-74 9) | | | X | | | | | | | | | | | | |
| 7P. 4,4'-DDT (50-29-3) | | | X | | | | | | | | | | | | |
| 8P. 4,4' DDE (72-55 9) | | | X | | | | | | | | | | | | |
| 9P. 4,4'-DDD (72 54-8) | | | X | | | | | | | | | | | | |
| 10P. Dieldrin (60 57-1) | | | X | | | | | | | | | | | | |
| 11P. α-Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 12P β Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 13P Endosulfan Sulfate (1031-07 8) | | | X | | | | | | | | | | | | |
| 14P. Endrin (72 20 8) | | | X | | | | | | | | | | | | |
| 15P Endrin Aldehyde (7421 93 4) | | | X | | | | | | | | | | | | |
| 16P Heptachlor (76 44 8) | | | X | | | | | | | | | | | | |

CONTINUED FROM PAGE V-8

EPA I.D NUMBER (copy from Item 1 Form 1): LA0003301/WP1561

OUTFALL NUMBER: 321

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. PRESENT IN BELIEVED ABSENT | b. PRESENT IN 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 AVRG. VALUE | | b. NO. OF ANALYSES |
| | | | | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | (a) CONCENTRATION | (b) MASS | | | | (a) CONCENTRATION | (b) 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 | | | | | | | | | | | | |



* Not found at quantitation limits.
** Not applicalbe, internal outfall
*** Not applicalbe, division canal pH system

Internal Outfall: 321

EPA I.D. Number (copy from item 1 of Form 1): LA0003301/WP1561

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

**VII. Discharge Information** *(Continued from page 3 of Form 2F.)*

**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.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| Oil and Grease | | | | | | |
| Biological Oxygen Demand (BOD5) | Internal outfall 321 flows continuously. | | | | | |
| Chemical Oxygen Demand (COD) | No 2F testing was done. Please refer | | | | | |
| Total Suspended Solids (TSS) | to 2C data for internal outfall 321. The | | | | | |
| Total Kjeldahl Nitrogen | unanswered portions of this form are not applicable. | | | | | |
| Nitrate plus Nitrite Nitrogen | | | | | | |
| Total Phosphorus | | | | | | |
| pH | Minimum | Maximum | Minimum | Maximum | | |

**Part B** - List each pollutant that is listed in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater if the facility is operating under an existing NPDES permit. Complete one table for each outfall. See the instructions for additional details and requirements.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

| Pollutant and CAS Number (if available) | Maximum Values (include units) | | Average Values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow-weighted composite sample.

| 1. Date of Storm Event | 2. Duration of Storm (in minutes) | 3. Total rainfall during storm event (in inches) | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event (gallons/minute or specify units) | 6. Total flow from rain event (gallons or specify units) | 7. Season sample was taken | 8. Form of Precipitation (rain/sail, snowmelt) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

9. Provide a description of the method of flow measurement or estimate.

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | QUANTITATION LIMIT (MG/L) | METHOD |
|---|---|---|
| CYANIDE | 0.01 | 412 B&D |
| BOD | 1 | 507 |
| COD | 10 | 508A |
| BORON | 0.1 | 404A |
| TOTAL KJELDAHL N2 | 1 | 420A, 417D |
| COLOR (TRUE/APPARENT) | 15 APHA | 204A |
| FOAMING AGENTS | 0.1 | 512B |
| ORGANIC NITROGEN | 1 | 420A, 417A &D |
| PHENOLS | 0.002 | 510A&B |
| FECAL COLIFORM | 1 COL/100ML | 909C |
| SULFITE (TITRIMETRIC) | 2 | 377.1 |
| ALUMINUM | 0.2 | 202.1 |
| ANTIMONY | 0.1 | 204.1 |
| ARSENIC | 0.01 | 206.2 |
| BARIUM | 0.1 | 208.1 |
| BERYLLIUM | 0.005 | 210.2 |
| CADMIUM | 0.01 | 213.2 |
| CHROMIUM | 0.01 | 218.2 |
| COBALT | 0.05 | 219.1 |
| COPPER | 0.005 | 220.2 |
| IRON | 0.03 | 236.1 |
| LEAD | 0.005 | 239.2 |
| MAGNESIUM | 0.01 | 242.1 |
| MANAGANESE | 0.01 | 243.1 |
| MERCURY | 0.0002 | 245.1 |
| MOLYBDENUM | 0.03 | 246.1 |
| NICKEL | 0.05 | 249.1 |
| SELENIUM | 0.01 | 270.2 |
| SILVER | 0.005 | 272.2 |
| THALLIUM | 0.1 | 279.2 |
| TIN | 1 | 282.1 |
| TITANUIM | 0.3 | 283.1 |
| ZINC | 0.01 | 289.1 |
| TOTAL PHOSPHORUS | 0.1 | 424C&F |
| NO2/NO3 | 0.05 | 418C |
| BROMIDE | 2 | 320.1 |
| SULFATE (TURBIDIMETRIC) | 5 | 426C |
| OIL & GREASE | 1 | 413.1 |
| RESIDUAL CHLORINE | 0.05 | ORION |
| TOTAL OXYGEN DEMAND | 10 | ASTM 3250-77 |
| TOTAL SUSPENDED SOLIDS | 1 | 160.2 |
| TOTAL ORGANIC CARBON | 2 | 415.1 |
| VOLATILE ORGANICS | 0.01 | 601, 602, 624 |
| BASE NEUTRALS | 0.01 | 625 |
| ACID PHENOLS | 0.01 | 625 |

THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
LA0003301/WP1561

## METHODS & QUANTITATION LIMITS FORMS 2C/2F ANALYSES

| ANALYSIS | LIMIT (MG/L) | METHOD |
|---|---|---|
| PESTICIDES | 0.01 | 625 |
| AMMONIA | 0.01 | 350.3 |
| SULFIDE | 0.01 | 376.1 |
| pH | 0-14 SU | 150.1 |
| TEMPERATURE | .5°C | 170.1 |
| FLUORIDES | 0.2 | 413B |
| | **PCI/L** | **METHOD** |
| **RADILOGICALS** | | |
| GROSS ALPHA | 0.1 | 703 |
| GROSS BETA | 0.10 | 703 |
| RADIUM (226) | 0.10 | 705 |
| RADIUM (228) | 0.10 | 706 |
| TOTAL RADIUM | 0.10 | 705 |

For any test value below the quantitation limit, a zero was used for any required calculation.

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)*: LA0003301/WP1561

*Form Approved OMB No. 2040-0086 Approval expires 7-31-88*

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

OUTFALL NO. 331

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 | (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 | 3. UNITS (specify if blank) a. CONCENTRATION | b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand (BOD) | 1.9 | 57.2 | | | | | 1 | mg/l | lb | | | |
| b. Chemical Oxygen Demand (COD) | 22 | 662 | Interference believed present | | | | 1 | mg/l | lb | | | |
| c. Total Organic Carbon (TOC) | 4 | 120 | | | | | 1 | mg/l | lb | | | |
| d. Total Suspended Solids (TSS) | 24 | 723 | | | | | 1 | mg/l | lb | | | |
| e. Ammonia (as N) | * | | | | | | 1 | mg/l | lb | | | |
| f. Flow | VALUE 8.3 | | VALUE 5.62 | | VALUE 3.2 | | 607 | MGD | | 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 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. 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 | b. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | 0.063 | 2.2 | | | | | 1 | mg/l | lb | | | |



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ITEM V-B CONTINUED FROM FRONT

| 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. (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | b. (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. (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. a. (2) MASS | 5. b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. Nitrogen, Total Organic (as N) | | X | | | | | | | | | | | | |
| h. Oil and Grease | X | | 1 | 30 | | | | | 1 | mg/l | lb | | | |
| i. Phosphorus (as P), Total (7723-14-0) | | X | * | | | | | | 1 | mg/l | lb | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | X | | | | | | | | | | | | |
| (2) Beta, Total | | X | | | | | | | | | | | | |
| (3) Radium, Total | | X | | | | | | | | | | | | |
| (4) Radium 226, Total | | X | | | | | | | | | | | | |
| k. Sulfate (as $SO_4$) (14808-79-8) | | X | | | | | | | | | | | | |
| l. Sulfide (as S) | | X | | | | | | | | | | | | |
| m. Sulfite (as $SO_3$) (14265-45-3) | | X | | | | | | | | | | | | |
| n. Surfactants | | X | | | | | | | | | | | | |
| o. Aluminum, Total (7429-90-5) | | X | | | | | | | | | | | | |
| p. Barium, Total (7440-39-3) | | X | | | | | | | | | | | | |
| q. Boron, Total (7440-42-8) | | X | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48-4) | | X | | | | | | | | | | | | |
| s. Iron, Total (7439-89-6) | | X | | | | | | | | | | | | |
| t. Magnesium, Total (7439-95-4) | | X | | | | | | | | | | | | |
| u. Molybdenum, Total (7439-98-7) | | X | | | | | | | | | | | | |
| v. Manganese, Total (7439-96-5) | | X | | | | | | | | | | | | |
| w. Tin, Total (7440-31-5) | | X | | | | | | | | | | | | |
| x. Titanium, Total (7440-32-6) | | X | | | | | | | | | | | | |