

LOUISIANA DIVISION  
ENVIRONMENTAL CAPITAL SPENDING  
AUTHORIZED PROJECTS

| AUTH.<br>NO. | PROJECT<br>TITLE                            | \$M<br>TOTAL | SPENDING \$M |      |      |      | RTO   |
|--------------|---------------------------------------------|--------------|--------------|------|------|------|-------|
|              |                                             |              | 1984         | 1985 | 1986 | 1987 |       |
| 74321        | METHOCEL ENVIRON.<br>UPGRADE                | 1900         | 1587         | 313  |      |      | 6/85  |
| 74322        | SPENT CELL EFFLUENT<br>SYSTEM LHC           | 4400         | 3410         | 996  |      |      | 9/85  |
| 74323        | WASTEWATER SYSTEM<br>LHC II                 | 4900         | 2106         | 2610 | 200  |      | 6/86  |
| 74324        | EXCURSION CONT.<br>LHC III                  | 4200         | 60           | 3231 | 685  |      | 6/86  |
| 74325        | ME/MECL STRIPPER<br>CMP                     | 1500         | 1249         | 228  |      |      | 9/85  |
| 74326        | SPENT H <sub>2</sub> SO <sub>4</sub><br>CMP | 1800         | 223          | 212  | 1400 |      | 12/86 |
| 74327        | THROX - CMP                                 | 3100         | 486          | 1931 | 1000 |      | 12/86 |
| 74328        | LANDFILL - LAD                              | 1700         | 170          | 329  | 600  | 600  | 12/87 |
| 74329        | RELIABILITY IMP.<br>E.O.                    | 1700         | 957          | 786  |      |      | 3/86  |
| 74330        | EFFLUENT COOLING<br>GLYCOL I                | 1250         | 1380         |      |      |      | 3/84  |
| 75002        | PER-TET SPLITTER<br>SOLVENTS                | 4100         |              | 42   | 2000 | 2000 | 9/87  |
| 75003        | SURFACE POND<br>ELIMINATION -<br>CHLORINE   | 3000         |              | 154  | 600  | 2200 | 12/87 |

BH:SB  
2/86

DO 074610  
CONFIDENTIAL

PROJECT TITLE: METHOCEL ENVIRONMENTAL UPGRADE

AUTH. \$M: 1900

TIMING:

PROJECT RTO - 6/85

REGULATORY - NEW NPDES PERMIT

PROJECT DESCRIPTION:

THIS PLANT EXPERIENCED CHRONIC OIL LOSSES TO THE RIVER, HIGH  
TOD LOSSES TO THE RIVER, UNPERMITTED RUNOFF FROM PONDS, AND  
TWO PONDS THAT REQUIRED PERMITTING UNDER LOUISIANA SOLID  
WASTE PROGRAM.

PROJECT INCLUDED SEPARATION OF ALL NON-CONTACT COOLING WATER,  
OIL SEPARATION AND SLAB RUNOFF COLLECTION, CONTACT WATER  
HANDLING, ORGANIC DISCHARGE PROTECTION IN CHEMICAL STORAGE,  
AND A TREATMENT SYSTEM FOR OFF-SPEC BATCHES.

BH:SB

2/86

DO 074611  
CONFIDENTIAL

## LHC II AND III SPENT CELL EFFLUENT TREATMENT SYSTEMS

THE NEW NPDES PERMIT, WHEN IMPLEMENTED, WILL REQUIRE THE LHC PLANTS II AND III MEET A BENZENE STANDARD. THE PERMIT LEVEL WILL BE BASED ON THE CONCENTRATION LEVEL ACHIEVABLE USING THE "BAT" (~150 PPB). PROJECT CONSISTED OF INSTALLING HIGH SPEED DECANTERS TO SEPARATE THE HYDROCARBON AND CELL EFFLUENT LIQUID PHASES, EXCHANGERS FOR HEAT RECOVERY AND STEAM STRIPPERS TO REMOVE BENZENE FROM SPENT CELL EFFLUENT.

BH:SB

2/86

DO 074612  
CONFIDENTIAL

## LHC II WASTEWATER SYSTEM

THIS PROJECT JUSTIFIED ALONG WITH SPENT CELL EFFLUENT PROJECT TO REDUCE BENZENE LOSSES TO WATER.

PROJECT CONSISTED OF REVAMPING THE QUENCH WATER TOWERS TO MINIMIZE NON-COMPLIANCES. THE OILY WATER EFFLUENT IS PHASE SEPARATED AND STEAM STRIPPED. THE HEAVY HYDROCARBON PHASE IS COLLECTED AND PROCESSED IN A DRYING SYSTEM AND THE OIL IS UTILIZED AS FUEL. THE SLOP OIL AREA HOLDING POND WAS CLOSED OUT AND THE "SLOP OIL" AREA DEMOLISHED AS THE RESULT OF THIS PROJECT.

BH:SB

2/86

DO 074613  
CONFIDENTIAL

STATUS REPORT  
LHC III BENZENE STRIPPING

RUN TIME LIMITED TO ONE TO TWO WEEKS DUE TO FOULING POLYMER FORMATION IN TOWER FROM ALDOL CONDENSATION REACTION THAT IS CATALYZED BY HEAT AND CAUSTIC CONCENTRATION.

POSSIBLE SOLUTIONS TO FOULING PROBLEM:

USE A CHEMICAL SCAVENGER TO REDUCE CARBONYL LEVELS.

DILUTE CAUSTIC CONCENTRATION USING CONDENSATE.

FUEL GAS STRIPPING TO RUN COLUMN AT LOWER TEMPERATURE.

BH:SB  
2/86

DO 074614  
CONFIDENTIAL

### LHC III EXCURSION CONTAINMENT

THIS PROJECT JUSTIFIED ALONG WITH THE LHC III AND LHC II SPENT CELL EFFLUENT TREATMENT SYSTEMS AND LHC II WASTEWATER SYSTEM TO REDUCE BENZENE LOSSES TO THE WATER.

THE PROJECT INVOLVES REPLACING AN EXISTING UNLINED RAINWATER IMPOUNDMENT WITH AN ABOVEGROUND TANK; AND THE INSTALLATION OF A FLOATING ROOF TANK AND STEAM STRIPPER TO HANDLE BOTH QUENCH COLUMN EMULSIONS AND BENZENE SPILLS WHICH CAUSE BENZENE PERMIT EXCURSIONS.

BH:SB *Project accomplished*

2/86

- o eliminate pond that had been used for pyrolosis*
- o 3/4" rainwater containment*
- o eliminate carbon beds that were saturated w/ organics*
- o reduce benzene discharge levels to 10-12 #/day per outfall (4 points)*

PROJECT TITLE: CMP METHANOL/METHYL CHLORIDE STRIPPER

AUTH. \$M: 1500

TIMING:

PROJECT RTO - 6/86

REGULATORY - NEW NPDES PERMIT

PROJECT DESCRIPTION:

THE CHLORINATED METHANES PLANT HAS SIGNIFICANT LOSSES OF METHANOL AND METHYL CHLORIDE. METHYL CHLORIDE LOSSES EXCEED PROPOSED PERMIT LIMITS FOR THE ENTIRE LOUISIANA DIVISION.

THE METHANOL/METHYL CHLORIDE STRIPPER IS THE BEST WAY TO ACHIEVE A REDUCTION OF THESE LOSSES.

BH:SB

2/86

DO 074616  
CONFIDENTIAL

PROJECT TITLE: CMP SPENT H<sub>2</sub>SO<sub>4</sub>

AUTH. \$M: 1800

TIMING:

PROJECT RTO - 12/86

REGULATORY - NEW NPDES PERMIT

PROJECT DESCRIPTION:

PROJECT WILL REDUCE THE LEVEL OF ORGANICS (I.E. DME, METHYL CHLORIDE, METHANOL) IN THE PLANT'S SPENT H<sub>2</sub>SO<sub>4</sub> ACID DISCHARGE STREAM IN ORDER TO MEET REQUIREMENTS OF THE "BPT" WATER REGULATIONS. ALTHOUGH DME IS NOT A PRIORITY POLLUTANT, REGULATIONS REQUIRE ITS CONTROL.

A STRIPPING COLUMN WITH THE OVERHEADS PIPED TO A THROX UNIT WILL BE INSTALLED TO REMOVE THE ORGANIC CONTAMINANTS.

BH:SB

2/86

DO 074617  
CONFIDENTIAL

PROJECT TITLE: CMP THROX

AUTH. \$M: 1800

TIMING:

PROJECT RTO - 12/86

REGULATORY - NEW NPDES PERMIT

PROJECT DESCRIPTION:

THE CHLORINATED METHANES PLANT HAS A SMALL THROX UNIT THAT OPERATES NEAR CAPACITY MOST OF THE TIME. THERE ARE A NUMBER OF METHYL CHLORIDE VENTS IN THE PLANT WHICH NEED TO BE INCINERATED INCLUDING LARGE LOSSES THAT OCCUR DURING PLANT SHUTDOWNS. METHYL CHLORIDE IS A ONE POUND REPORTABLE UNDER SUPERFUND.

LOSSES:

METHANOL - 700 LB/DAY

METHYL CHLORIDE - 400 LB/DAY

BAT LIMITS: 5 - 30 LB/DAY RANGE

BH:SB

2/86

DO 074618  
CONFIDENTIAL

PROJECT TITLE: LOUISIANA DIVISION LANDFILL

AUTH. \$M: 1700

TIMING:

SOLID WASTE - PROJECT RTO - 6/15/86

REGULATORY - APLF CLOSURE - 8/31/86

HAZARDOUS WASTE - PROJECT RTO - 1/88

DRIVING FORCE - INADEQUATE EXISTING H.W. LANDFILL

PROJECT DESCRIPTION:

THIS IS A PROJECT TO CONSTRUCT A STATE-OF-THE-ART SOLID WASTE AND HAZARDOUS WASTE LANDFILLS. THE USE OF SLURRY WALLS, IMPERMEABLE LINERS, AND LEACHATE COLLECTION SYSTEMS WILL BE UTILIZED TO MEET STATE AND FEDERAL REGULATIONS.

THE EXISTING SOLID WASTE LANDFILL IS LOCATED ADJACENT TO THE DIVISION ON AUSTRALIA POINT. THE LANDFILL IS OUTSIDE THE MISSISSIPPI RIVER LEVEE SYSTEM AND IS THEREFORE WITHIN THE 100-YEAR FLOOD PLANE. IT IS NOT PERMITTABLE BECAUSE OF THIS AND IS CURRENTLY UNDER AN AUGUST 31, 1986 CLOSURE ORDER.

THE EXISTING HAZARDOUS WASTE LANDFILL IN THE LOUISIANA DIVISION DOES NOT MEET STATE AND FEDERAL REQUIREMENTS FOR PERMITTING. A PRIMARY PURPOSE OF THE NEW HAZARDOUS WASTE LANDFILL WILL BE THE STORAGE OF INCINERATOR ASH FROM THE DIVISION'S HAZARDOUS WASTE INCINERATOR. IN ADDITION, THERE IS A NEED FOR A PERMITTED DISPOSAL SITE TO HANDLE A FEW HUNDRED TONS PER YEAR OF MISCELLANEOUS INORGANIC WASTES.

BH:SB  
2/86

DO 074619  
CONFIDENTIAL

BLOCK 80 NON-HAZARDOUS LANDFILL

SLURRY TRENCH CAP

PERIMETER DRAINAGE DITCH

SUMP

PIPELINE TO CENTRAL WASTE TREATMENT

INTERIOR DRAIN SYSTEM

INTERIOR GRADING

ACCESS ROAD WITH GUARDHOUSE

MONITORING WELLS

BH:SB  
2/86

DO 074620  
CONFIDENTIAL

PROJECT TITLE: BIOX RELIABILITY IMPROVEMENTS

AUTH. \$M: 1700

TIMING:

PROJECT RTO - 3/86

REGULATORY - NEW NPDES PERMIT

PROJECT DESCRIPTION:

PROJECT INCLUDES MODIFICATIONS TO THE WATER TREATMENT PLANT TO IMPROVE OPERATIONAL RELIABILITY AND NOT JEOPARDIZE DIVISION PRODUCTION BY AVOIDING DISCHARGE PERMIT VIOLATIONS.

IN ORDER TO ACCOMPLISH THIS, A CIRCULATION HEADER SYSTEM WILL BE INSTALLED TO IMPROVE EQUALIZATION IN THE FEED IMPOUNDMENT, THE INSTRUMENTATION AND CONTROL SCHEME OF THE FILTER PRESS WILL BE UPGRADED, AND THE INCOMING ELECTRICAL SWITCHGEAR UPGRADED TO AVOID PLANT SHUTDOWNS FOR PREVENTIVE MAINTENANCE.

BH:SB

2/86

DO 074621  
CONFIDENTIAL

PROJECT TITLE: PER-TET SPLITTER COLUMN

AUTH. \$M: 400

TIMING:

PROJECT RTO - 9/87

REGULATORY - NEW NPDES PERMIT

PROJECT DESCRIPTION:

PROJECT INCLUDES A CHLORINE/HCL SPLITTER COLUMN THAT WILL REPLACE AN EXISTING WET HCL ABSORPTION, CHLORINE DRYING, AND CHLORINE COMPRESSOR UNITS.

THE SOLVENTS PLANT PRESENTLY HAS CARBON TET EMISSIONS FROM THE PER-TET PROCESS IN EXCESS OF THE PROPOSED PERMIT LEVELS, AND THE EXISTING EQUIPMENT IN THE PER-TET ABSORPTION AREA CANNOT CONTROL AT LEVELS BELOW THE PROPOSED NEW REGULATIONS. INSTALLATION OF THE SPLITTER COLUMN REPRESENTS THE APPLICATION OF THE BEST AVAILABLE TECHNOLOGY.

BH:SB

2/86

DO 074622  
CONFIDENTIAL

PROJECT TITLE: CHLORINE SURFACE POND ELIMINATION

AUTH. \$M: 3000

TIMING:

PROJECT RTO - 9/87

REGULATORY -

NEW NPDES PERMIT

TSS

RESIDUAL CHLORINE

PH

RCRA - GROUNDWATER CONTAMINATION SOURCES

PROJECT DESCRIPTION:

PROJECT WILL UPGRADE THE CHLORINE PLANT'S EXISTING WASTE ALKALINITY STORAGE AND WASTE EFFLUENT SYSTEMS. THE PROJECT WILL INSTALL ABOVEGROUND TANKAGE TO REPLACE THE EXISTING IN GROUND IMPOUNDMENT. IN ADDITION, A TREATMENT SYSTEM FOR REDUCING RESIDUAL CHLORINE LEVELS AND ADJUST THE PH OF EFFLUENT WILL BE INSTALLED TO ENABLE THE PLANT TO COMPLY WITH NEW PERMIT LIMITS; AND BRINE FILTER BACKWASH WILL BE RECYCLED TO ELIMINATE THE SOURCE OF TSS.

BH:SB

2/86

DO 074623  
CONFIDENTIAL

PROJECT TITLE: BRINE PRODUCTION ENVIRONMENTAL UPGRADE

AUTHORIZATION DATE: 1987

TOTAL \$M: 1500

TIMING:

PROJECT RTO - 1/89

REGULATORY - STATE ORDER 29-B, COMPLIANCE BY 3/89

PROJECT DESCRIPTION:

THE PROJECT WILL RETROFIT TWO BRINE STORAGE SURFACE IMPOUNDMENTS WITH IMPERVIOUS LINERS TO PREVENT THE FURTHER MIGRATION OF BRINE SOLUTION. THE PROJECT WILL ALSO PROVIDE FOR INSTALLING LINERS IN 14 - 15 LOCATION PITS, AND CONTAINMENT FOR BRINE PUMPING STATIONS. A WATER POND THAT RECEIVES WATER RUNOFF FROM AROUND WELL LOCATIONS MAY ALSO REQUIRE A LINER.

ENGINEERING WORK - TENTATIVELY SCHEDULED TO START IN JANUARY, 1987.

CONSTRUCTION WORK - THIRD QUARTER, 1987

DO 074624  
CONFIDENTIAL

LOUISIANA DIVISION  
ENVIRONMENTAL CAPITAL SPENDING  
UNAUTHORIZED PROJECTS

| PROJECT                                      | AUTH.<br>DATE | \$M<br>TOTAL | 1986 | 1987 | 1988 | RTD  | DRIVING<br>FORCE            |
|----------------------------------------------|---------------|--------------|------|------|------|------|-----------------------------|
| DIVISION<br>TANKFARM<br>IMPROVEMENTS         | 3/86          | 1100         | 800  | 300  |      | 3/87 | NPDES PERMIT<br>6/86        |
| BRINE PRODUCTION<br>ENVIRONMENTAL<br>UPGRADE | 1987          | 1500         |      | 500  | 1000 | 1/89 | LA. DNR S.O.<br>29-B - 3/89 |
| BRINE STG. POND<br>IMP. - CHLORINE           | 1987          | 250          |      | 150  | 100  | 1/89 | LA. DNR S.O.<br>29-B - 3/89 |

BH:sb  
2/86

DO 074625  
CONFIDENTIAL

PROJECT TITLE: DIVISION TANK FARM IMPROVEMENTS

AUTHORIZATION DATE: 3/86

TOTAL \$M: 1100

TIMING:

PROJECT RTO - 3/87

REGULATORY - NEW NPDES PERMIT

PROJECT DESCRIPTION:

PROJECT WILL PROVIDE A MEANS FOR CAUSTIC I, GLYCOL I, AND SOLVENTS PLANTS TO COLLECT AND RECYCLE CHEMICAL LEAKS, SPILLS, AND CONTAMINATED STORMWATER RUNOFF, AND PREVENT CHEMICAL LOSSES TO THE SOIL AROUND PUMPING SYSTEMS, SAMPLING POINTS, PRODUCT FILTERS AND AIR POLLUTION CONTROL EQUIPMENT.

THE PRIMARY REASON FOR ENVIRONMENTALLY UPGRADING THE TANK FARM IS TO COMPLY WITH FORTHCOMING NPDES PERMIT DISCHARGE LIMITATIONS. THESE REGULATIONS IMPOSE RIGOROUS REQUIREMENTS ON PERMISSIBLE CONCENTRATIONS OF EDC, CHLOROFORM, AND MATERIAL CONTRIBUTING TO TOD IN DISCHARGEABLE QUALITY STORMWATER.

DO 074626  
CONFIDENTIAL

THE PROJECT WILL INSTALL INTERMEDIATE DIKING TO SEGREGATE  
NON-COMPATIBLE MATERIALS FROM RECYCLE STANDPOINT. FOUR SUMPS  
WILL BE INSTALLED TO COLLECT STORMWATER RUNOFF AND FORWARD IT  
INTO RECYCLE HANDLING SYSTEMS, OR DISCHARGE IT TO A PERMITTED  
OUTFALL. CONTAINMENT WILL BE INSTALLED AROUND PUMPS,  
SAMPLING/DRAIN POINTS, FILTERS, AND AIR POLLUTION CONTROL  
EQUIPMENT WITH DRAINS TO LEAK COLLECTION SUMPS.

ENGINEERING COMPLETED 2ND QUARTER, 1986

CONSTRUCTION STARTED 3RD QUARTER, 1986

PROJECT TITLE: CHLORINE PLANT BRINE STORAGE PONDS UPGRADE (PITS  
1 AND 2)

AUTHORIZATION DATE: 1987

TOTAL \$M: 250

TIMING:

PROJECT RTO - 1/89

REGULATORY - STATE ORDER 29-B, COMPLIANCE BY 3/89

PROJECT DESCRIPTION:

PROJECT WILL INSTALL IMPERVIOUS LINERS IN TWO BRINE STORAGE  
SURFACE IMPOUNDMENTS. THE 20-YEAR OLD CONCRETE IMPOUNDMENTS  
ARE SUSPECT OF LEAKAGE INTO THE ENVIRONMENT.

BH:sb

2/86

DO 074628  
CONFIDENTIAL

LOUISIANA DIVISION  
ENVIRONMENTAL EXPENSE PROJECTS

| PROJECT          | \$M<br>TOTAL | SPENDING |      |      |      | DRIVING<br>FORCE         |
|------------------|--------------|----------|------|------|------|--------------------------|
|                  |              | 1985     | 1986 | 1987 | 1988 |                          |
| BLOCK 49 CLOSURE | 2800         | 1115     | 1000 | 400  | 300  | ADMIN. ORDER<br>FROM DEQ |
| APLF CLOSURE     | 1050         | 374      | 675  |      |      | CLOSURE ORDER<br>8/86    |

BH:SB  
2/86

DO 074629  
CONFIDENTIAL

PROJECT TITLE: BLOCK 49

TOTAL \$M: 2800

TIMING:

PROJECT - CONTINUING THROUGH 1988

REGULATORY - ADMINISTRATIVE ORDER, LA. DEQ

PROJECT DESCRIPTION:

THIS PROJECT WILL CONTINUE REMEDIAL ACTIVITY TO RECOVER  
CONTAMINATED GROUNDWATER FROM THIS INACTIVE WASTE DISPOSAL  
SITE. THE PROJECT INVOLVES THE INSTALLATION OF A SERIES OF  
RECOVERY WELLS, A PHASE SEPARATION SYSTEM, A STORAGE TANK, A  
TRANSFER LINE TO BLOCK 19, AND EQUIPMENT WASHDOWN STATION.

BH:SB

2/86

DO 074630  
CONFIDENTIAL

PROJECT TITLE: AUSTRALIA POINT LANDFILL NO. 2 CLOSURE

AUTH. \$M: 1050

TIMING:

PROJECT - 3RD QUARTER, 1986

REGULATORY - CLOSURE COMPLIANCE ORDER, LA. DEQ - AUGUST 31, 1986

PROJECT DESCRIPTION:

THIS AREA CONTAINS GENERAL INDUSTRIAL SOLID WASTE  
(NON-HAZARDOUS) AND IS LOCATED ON THE RIVER SIDE OF THE  
MISSISSIPPI RIVER LEVEE. THE PROPERTY IS IN THE 100-YEAR  
FLOOD PLANE AND FLOODS REGULARLY.

CLOSURE WILL INCLUDE A SECURE CLAY CAP, TOP SOIL, VEGETATION,  
AND A LEACHATE COLLECTION SYSTEM.

BH:SB

2/86

DO 074631  
CONFIDENTIAL

LOUISIANA DIVISION  
UNDERGROUND STORAGE TANKS

| LOCATION                  | VOLUME<br>(GALLONS) | CONTENTS                         | COST      |
|---------------------------|---------------------|----------------------------------|-----------|
| DOWANOLS                  | 1700                | GLYCOLS, ETHERS, AND<br>ALCOHOLS | \$15,000* |
| MACHINE SHOP              | 25                  | HYDRAULIC OIL SYSTEM             |           |
| POLY C                    | 1300                | WASTE OIL                        |           |
| BRINE PRODUCTION          | 1000                | GASOLINE                         | \$5,000   |
| MAINTENANCE -<br>BLOCK 30 | 4000                | LEADED GASOLINE                  |           |
| MAINTENANCE -<br>BLOCK 30 | 4000                | DIESEL FUEL                      | \$85,000  |
| MAINTENANCE -<br>BLOCK 30 | 4000                | UNLEADED GASOLINE                |           |
| PIPELINE                  | 4000                | GASOLINE                         | \$40,000  |

\*CATHODIC PROTECTION COSTS

BH:sb  
2/86

DO 074632  
CONFIDENTIAL

# NAPHTHA PIPELINE TANKS\*

| LOCATION                         | VOLUME<br>(GALLONS) | CONTENTS | COST    |
|----------------------------------|---------------------|----------|---------|
| PIPELINE - COURTABLEU            | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - W. OPELOUSAS          | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - E. OPELOUSAS          | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - BASILE                | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - E. EUNICE             | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - W. EUNICE             | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - W. VINTON             | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - E. VINTON             | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - BUHLER                | 208                 | NAPHTHA  | \$2000  |
| PIPELINE - LOBDELL               | 2100                | NAPHTHA  | \$3500  |
| PIPELINE - BLOCK 110<br>TANKFARM | 2100                | NAPHTHA  | \$3500  |
| TOTAL COST                       |                     |          | \$25000 |

\*EXEMPTED FROM FEDERAL REGULATIONS

BH:SB  
2/86

DO 074633  
CONFIDENTIAL

# 1986, 1987 SPC AND SPCC CAPITAL PROJECTS

| <u>SPCC</u> | <u>\$M</u> | <u>TIMING</u> |                                     |
|-------------|------------|---------------|-------------------------------------|
| POLY A      | 30         | 1986          | WASTE OIL                           |
| POLY A      | 50         | 1986          | ENLARGE SUMP BY AC 1 - 4            |
| POWER II    | 30         | 1986          | OIL/H.W. STORAGE                    |
| SOLVENTS    | 30         | 1986          | COMPRESSOR OIL DIKING               |
| R&D         | 20         | 1986          | OIL CONTAINMENT                     |
| MAINTENANCE | 23         | 1987          | GAS TRUCK OFF LOAD<br>CONTAINMENT   |
| UTILITIES   | 90         | 1986          | DIVISION TRANSFORMER<br>CONTAINMENT |

| <u>SPC</u> | <u>\$M</u> | <u>TIMING</u>                 |                                      |
|------------|------------|-------------------------------|--------------------------------------|
| CMP        | 150        | 1986 - \$50M<br>1987 - \$100M | TANKCAR LOAD RACK<br>CONTAINMENT     |
| VINYL II   | 200        | 1986 - \$75M<br>1987 - \$125M | TANKCAR/TRUCK LOADING<br>CONTAINMENT |
| CA II      | 250        |                               | CAUSTIC TANK<br>CONTAINMENT (5)      |
| CAUSTIC    | 180        | 1986                          | TO COMPLETE BLOCK<br>CONTAINMENT     |
| POLY B     | 20         | 1987                          | TANKCAR CONTAINMENT                  |

| <u>SPC AND SPCC</u> | <u>\$M</u> | <u>TIMING</u> |                                        |
|---------------------|------------|---------------|----------------------------------------|
| CHLORINE            | 200        | 1986          | OIL AND SPC CONTAINMENT<br>(EXTENSIVE) |
| MARKET DEVEL.       | 20         | 1986          | OIL AND SPC CONTAINMENT                |

BH:SB  
2/86

DO 074634  
CONFIDENTIAL