

APPENDIX 5

**St. Bernard Pump Stations
Chalmette, St. Bernard Parish, LA**

Table 1

Combustible Emissions

Assumptions for Combustible Emissions					
Type of Construction Equipment	Number of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Diesel Crane	4	300	10	225	2700000
Diesel Crane, Hydraulic	2	400	8	60	384000
Diesel Bull Dozer	4	150	8	120	576000
Diesel Excavator	6	315	8	240	3628800
Diesel Dump Truck	16	350	6	180	6048000
Diesel Road Compactor	2	340	8	120	652800
Water Truck	2	350	6	120	504000
Generator Set	2	750	10	225	3375000

Table 2

Emission Factors

Type of Construction Equipment	SO2 g/hp-hr	SO2 lbs/hp-hr
Diesel Crane	1.070	0.0024
Diesel Crane, Hydraulic	1.070	0.0024
Diesel Bull Dozer	1.070	0.0024
Diesel Excavator	1.070	0.0024
Diesel Dump Truck	1.070	0.0024
Diesel Road Compactor	1.070	0.0024
Water Truck	1.070	0.0024
Generator Set	1.070	0.0024

Convert grams to pounds: (g) x (.0022) = lbs
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Emission Factors derived from the EPA's NONROAD2010 model

Table 3

Annual VOC and NOx Emissions Totals

Total Calculated Emissions	
Type of Construction Equipment	SO2 lbs/hp-hr
Diesel Crane	3.24
Diesel Crane, Hydraulic	0.46
Diesel Bull Dozer	0.69
Diesel Excavator	4.35
Diesel Dump Truck	7.26
Diesel Road Compactor	0.78
Water Truck	0.6
Generator Set	4.05
TOTALS	21.43

Emissions Formula: $(\text{lbs/hp-hr}) \times (\text{hp}) \times (\text{hr}) \times (\text{days}) \times (\# \text{ of units}) / 2000 = \text{Tons/yr}$

NOTE: The listed equipment is the type and number of equipment that may typically be used at a seepage repair project.