TABLE E-1.—POTENTIAL SOURCES OF POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM MANUFACTURING—Continued

Activity	Pollutant source	Pollutants/indicators
Material Handling at Concrete Product Manufacturing Facilities.	Exposed: aggregate, concrete, shale, clay, slate, slag, pumice, and limestone as well as spills or leaks of cement, fly ash, admixtures and baghouse settled dust.	TSS, COD, pH, lead, iron, zinc.
Mixing Concrete	Spilled: aggregate, cement, and admixture	TSS, pH, COD, lead, iron zinc.
Casting/Forming Concrete Products	Concrete, aggregate, form release agents, reinforcing steel, latex sealants, and bitumastic coatings.	TSS, pH, oil and grease, COD, BOD.
Vehicle and Equipment Washing at Concrete Product Manufacturing Facilities.	Residual: aggregate, concrete, admixture, oil and grease	TSS, pH, COD, oil and grease.
Crushing/Grinding of Gypsum Rock	Exposed or spilled: gypsum rock and dust	TSS, pH.
Material Storage at Gypsum Manufacturing Facilities.	Exposed: gypsum rock, synthetic gypsum, recycled gypsum and wallboard, stucco, perlite ore/expanded perlite, and coal.	TSS, COD, pH.
Material Handling at Gypsum Manufacturing Facilities (including bagging and packaging).	Exposed or spilled: gypsum rock, synthetic gypsum, recycled gypsum and wallboard, stucco, perlite ore/expanded perlite, and coal.	TSS, pH, COD.
Equipment/Vehicle Maintenance	Gasoline, diesel, fuel, and fuel oil	Oil and grease, BOD, COD.
	Parts cleaning	COD, BOD, oil and grease, pH. Oil and grease, lead, iron, zinc, aluminum, COD, pH.
	Fluid replacement including lubricating fluids, hydraulic fluid, oil, transmission fluid, radiator fluids, solvents, and grease.	Oil and grease, arsenic, lead, cad- mium, chromium, COD, and benzene.

The activities common to the facilities covered under Part XI.E. of today's permit are material storage and material handling operations. All facilities covered under this section handle and store nonmetallic minerals. These minerals are typically loaded and unloaded in areas of the site that are exposed to storm water. The minerals are often stored outdoors until they are utilized in the industrial processes. Handling and storing these minerals outdoors may result in the discharge of a portion of the materials in storm water runoff. The presence of the nonmetallic minerals in the storm water is measured by the total suspended solids (TSS) test. Many of the minerals processed by the facilities are calcareous, such as limestone or chalk. The presence of these materials can elevate the pH of the storm water discharged from the site.

Vehicle fueling, repair, maintenance and cleaning occurs at many facilities covered under this section. Facilities will fuel, repair and maintain vehicles used to transport significant materials to, from or around the facility. Facilities may also perform maintenance on process or material handling equipment such as mixers or conveyors. The fueling, maintenance and repair activities may result in leaks or spills of oil from the vehicles and equipment. The spilled material may be carried off of the site in the storm water discharge.

Ready mix concrete facilities will frequently wash out the mixers of the trucks after concrete has been delivered to a job site. The wash out water contains unhardened concrete. Facilities will often wash down the exterior of their vehicles. The wash off water may contain cement, sand, gravel, clay, or other materials. The wash water from the vehicles should be either treated and discharged from the site through a sanitary sewer or NPDES permitted discharge or collected in a recycle pond where the heavy solids settle out and the water is recycled back to be used in the plant. Pollutants from the wash water may settle out on the site before it is treated or recycled. These pollutants may come into contact with

storm water and be discharged from the site.

Based on the wide variety of industrial activities and significant materials at the facilities included in this sector, EPA believes it is appropriate to divide the glass, clay, cement concrete and gypsum product industry into subsectors to properly analyze sampling data and determine monitoring requirements. As a result, this sector has been divided into the following subsectors: manufacturers of flat glass, glass and glassware, pressed or blown glass products made of purchased glass; hydraulic cement manufacturers; manufacturers of clay products, pottery and related products (including nonclay refractories); and concrete, gypsum and plaster product manufacturers (including ground minerals and earth). Tables E-2, E-3, E-4 and E-5 below include data for the eight pollutants that all facilities were required to monitor for under Form 2F. The tables also list those parameters that EPA has determined merit further monitoring.

TABLE E-2.—STATISTICS FOR SELECTED POLLUTANTS REPORTED BY FLAT GLASS, GLASS AND GLASSWARE, PRESSED OR BLOWN GLASS PRODUCTS MADE OF PURCHASED GLASS MANUFACTURING FACILITIES SUBMITTING PART II SAMPLING DATA! (MG/L)

Pollutant Sample type	No. of facilities		No. of samples		Mean		Minimum		Maximum		Median		95th percentile		99th percentile	
	Grab	Compii	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp
BOD ₅	9	9	17	17	9.4	7.76	0.0	0.0	45.0	16.0	5.0	7.0	27.8	17.56	49.5	25.01
COD	9	9	17	17	84.6	95.81	14.0	7.0	317.0	512.0	56.0	51.0	245.3	307.6	440.7	605.3
Nitrate + Nitrite Nitrogen	9	9	17	17	0.99	0.87	0.00	0.0	7.21	4.79	0.56	0.55	2.76	3.01	5.23	6.20
Total Kjeldahl Nitrogen	9	9	17	17	2.01	1.73	0.67	0.0	4.92	4.47	1.50	1.80	4.42	4.44	6.58	6.82
Oil & Grease	9	N/A	16	N/A	2.7	N/A	0.0	N/A	29.0	N/A	0.0	N/A	15.4	N/A	49.5	N/A
pH	9	N/A	18	N/A	N/A	N/A	4.6	N/A	9.8	N/A	7.9	N/A	10.5	N/A	11.8	N/A
Total Phosphorus	9	l 9	17	17	0.39	0.31	0.10	0.0	1.50	0.83	0.33	0.23	0.91	0.71	1.43	1.06