| TABLE B-4STATISTICS FOR S | Selected Pollutants | s Reported by Co | ONVERTED PAPER . | AND PAPERBOARD PRODUCTS, |
|---------------------------|---------------------------|--------------------|--------------------|-----------------------------------|
| EXCEPT CONTAINERS AND | D BOXES MANUFACTUR | RING FACILITIES SU | BMITTING PART II S | SAMPLING DATA ⁱ (mg/L) |

| # of F | acilities | # of S | amples | Me | an | Minii | mum | Maxir | num | Med | lian | 95th Pe | ercentile | 99th Pe | ercentile |
|----------------|--|---|---|---|---|--|---|--|---|---|---|---|---|---|---|
| Grab | Comp ⁱⁱ | Grab | Comp | Grab | Comp | Grab | Comp | Grab | Comp | Grab | Comp | Grab | Comp | Grab | Comp |
| 19 19 | 17 17 | 37 37 | 35 36 | 26.8 159.1 | 24.2 154.1 | 0.0 8.0 | 0.0 0.0 | 152.0 1300.0 | 367.0 1486.0 | 6.7 49.0 | 8.0 43.5 | 98.8 484.9 | 70.7 503.4 | 239.9 1137.2 | 157.2 1220.7 |
| 19 | 17 | 37 | 34 | 0.93 | 0.74 | 0.00 | 0.0 | 5.20 | 2.44 | 0.40 | 0.46 | 3.17 | 2.19 | 6.72 | 3.98 |
| 19 19 19 | 17 N/A N/A | 37 39 39 | 35 N/A N/A | 3.28 1.9 N/A | 2.40 N/A N/A | 0.00 0.0 4.2 | 0.0 N/A N/A | 38.70 18.0 8.9 | 23.1 N/A N/A | 1.00 0.6 7.0 | 1.03 N/A N/A | 10.95 7.5 8.8 | 8.45 N/A N/A | 25.02 15.9 9.8 | 18.1 N/A N/A |
| 19 | 17 | 37 | 35 | 0.30 | 0.28 | 0.00 | 0.0 | 2.58 | 1.25 | 0.18 | 0.15 | 0.92 | 0.86 | 1.76 | 1.56 500.8 |
| | Grab 19 19 19 19 19 19 19 | 19 17 19 17 19 17 19 17 19 17 19 17 19 N/A 19 N/A 19 17 | Grab Comp ¹¹ Grab 19 17 37 19 17 37 19 17 37 19 17 37 19 17 37 19 17 37 19 17 37 19 17 37 19 N/A 39 19 N/A 39 19 N/A 39 19 17 37 | Grab Comp ¹¹ Grab Comp 19 17 37 35 19 17 37 36 19 17 37 36 19 17 37 36 19 17 37 34 19 17 37 35 19 N/A 39 N/A 19 N/A 39 N/A 19 N/A 39 N/A 19 N/A 39 N/A 19 17 37 35 | Grab Comp ⁱⁱ Grab Comp Grab 19 17 37 35 26.8 19 17 37 36 159.1 19 17 37 36 159.1 19 17 37 34 0.93 19 17 37 35 3.28 19 N/A 39 N/A 1.9 19 N/A 39 N/A 1.9 19 N/A 39 N/A 1.9 19 N/A 39 N/A 0.30 19 N/A 39 N/A 0.30 | Grab Comp ^{III} Grab Comp Grab Comp 19 17 37 35 26.8 24.2 19 17 37 36 159.1 154.1 19 17 37 34 0.93 0.74 19 17 37 35 3.28 2.40 19 17 37 35 3.28 2.40 19 N/A 39 N/A 1.9 N/A 19 N/A 39 N/A 1.9 N/A 19 N/A 39 N/A 0.30 0.28 | Grab Comp ¹¹ Grab Comp Grab Comp Grab Comp Grab Grab | Grab Comp ¹¹ Grab Comp Grab Comp Grab Comp 19 17 37 35 26.8 24.2 0.0 0.0 19 17 37 36 159.1 154.1 8.0 0.0 19 17 37 36 159.1 154.1 8.0 0.0 19 17 37 35 3.28 2.40 0.00 0.0 19 17 37 35 3.28 2.40 0.00 0.0 19 N/A 39 N/A 1.9 N/A 0.0 N/A 19 N/A 39 N/A 1.9 N/A 4.2 N/A 19 17 37 35 0.30 0.28 0.00 0.0 19 N/A 39 N/A N/A 0.28 0.00 0.0 | Grab Comp ¹¹ Grab Comp Grab Comp Grab Comp Grab Comp Grab Gomp Gomp Grab | Grab Comp ¹¹ Grab Comp Grab Grab | Grab Comp ^{II} Grab Comp Grab Grab Comp Grab Comp Grab Grab Comp Grab Grab | Grab Comp ¹¹ Grab Comp Grab Grab | Grab Comp ⁱⁱ Grab Comp Grab Grab Grab Gamp Grab Gamp Grab Gamp Grab Gamp Gamp | Grab Comp ⁱⁱ Grab Comp Grab Grab Comp Grab Comp Grab Grab Grab Grab Grab Grab Grab | Grab Comp ⁱⁱ Grab Comp Grab Grab Grab Grab Grab Grab Grab Grab Grab Grab |

ⁱ Applications that did not report the units of measurement for the reported values of pollutants were not included in these statistics. Values reported as non-detect or below detection limit were assumed to be 0. ⁱⁱ Composite samples.

4. Options for Controlling Pollutants

There are two options for reducing pollutants in storm water discharge; end-of-pipe treatment, and implementing best management practices (BMPs) to prevent and/or eliminate the contact between significant materials and storm water. A comprehensive storm water management program for a given plant may include controls from each of these categories and should be based on a consideration of site and facility plant characteristics. End-of-pipe treatment is effective for the control of process waters when the types of pollutants and the volume of water to be treated is known. However, storm water discharges from any industry, including the paper and allied product manufacturing industry, can be numerous, intermittent, and of various volumes. Therefore, the channelization of storm water that comes into contact with significant materials into a single treatment facility, or construction of numerous treatment devices for each discharge, may be burdensome and ineffective for treating pollutants

contained in storm water from these types of facilities. EPA believes that the most appropriate means of storm water management at paper and allied product manufacturing facilities can be sufficiently determined by the operator of the facility.

EPA believes that the most effective storm water management control for limiting the offsite discharge of pollutants in storm water is a combination of passive and active BMPs.

Examples of BMPs range from simple housekeeping, material handling practices, preventive maintenance, diversions practices, to more advanced structural control such as detention and retention ponds and infiltration devices.

The selection of the most effective BMPs will be based on site-specific considerations such as: facility size, climate, geographic location, hydrogeology and the environmental setting of each facility, volume and type of discharge generated, and number of outfalls. Each facility will be unique in that the source, type and volume of contaminated storm water discharges will differ. In addition, the fate and transport of pollutants in these discharges will vary. EPA believes that the management practices discussed herein are well suited mechanisms to prevent or control the contamination of storm water discharges associated with the paper and allied product manufacturing industry.

As part of the group application review process, a review of the part 1 data was analyzed. The applications indicated that numerous BMPs were already being implemented at many of the representative sites. Table B-5 provides the most common practices presently being employed and the relative percentage of facilities who are implementing them. Table B-6 provides an additional list of BMPs that may be appropriate for the industry. Many of the BMPs identified are examples of practices intended to limit the exposure of significant materials and industrial activities to storm water. Facility operators should review their current operations and consider implementing these BMPs if they are applicable to the site and are expected to reduce the discharge of pollutants from the site in storm water.

TABLE B-5.—BEST MANAGEMENT PRACTICES DISCUSSED IN PART 1 GROUP APPLICATIONS¹

| BMP | Percent of facilities |
|--|--------------------------|
| Catch Basins | 22.2 |
| Diversion structures around potential contaminants | 43.8 |
| Spill Control Procedures, Contingency Plans (SPCC) | 67.4 |
| Swales, ditches, trench or graded surfaces | 51.4 |
| Employee training | 62.5 |

¹Material Management Practices were identified in over 20 percent of the 144 facilities in the sampling subset.

TABLE B-6.—SUGGESTED BEST MANAGEMENT PRACTICES AT PULP AND ALLIED PRODUCTS MANUFACTURING FACILITIES

| Activity | Suggested BMPs |
|-------------------------------|---|
| Outdoor loading and unloading | Confine loading/unloading activities to a designated response and control area. Avoid loading/unloading materials in the rain. Cover loading/unloading area/or conduct these activities indoors. Develop and implement spill plans. Use berms or dikes around area. |