

Appendix B: Data

This appendix describes in detail the data sources and elements. The EPA Permit Compliance System (PCS) database provides the following elements for each regulated facility: (1) type of discharge limit, (2) indication of modification to a permit during the current issuance period, (3) monthly wastewater flow, (4) TSS monthly discharge limits, (5) TSS monthly discharges, (6) four-digit SIC code, and (7) facility location. Below this appendix discusses further the discharge measurements and limits.

The PCS database also provides data on inspections performed by federal and state regulatory agencies. Both the PCS database and the EPA Docket database provide data on federal fines imposed by EPA administrative courts and civil courts. The Docket database provides data on federal injunctive relief sanctions and federal SEPs. Our study integrates these two databases.

Other sources provide the remaining data. The U.S. Census Bureau provides information on natural resource-related budgets for local and state agencies. Since all EPA activities are related to natural resources, we use more specific budgetary information on the Enforcement and Compliance Assistance program within the EPA. However, this information is available only for the EPA regional offices. We divide these budgetary levels by the number of manufacturing facilities located in a given state or region, respectively, as provided by the U.S. Census Bureau (County Business Patterns).

The EPA Toxic Release Inventory (TRI) database provides annual information on a facility's parent company. The Business and Company Resource Center database and Compustat / Research Insight database provide annual data on a parent company's ownership structure.

All dollar-denominated values are deflated to 1995 levels using the Consumer Price Index.

Lastly, this appendix discusses aspects of discharges and limits. Effluent limits restrict discharges according to two pollution measures: monthly average and monthly maximum. Conversations with government officials and the EPA's definition of significant noncompliance, however, suggest that regulators primarily care about the average limit (GAO, 1996). Thus, we focus on the average limit. In addition, effluent limits may restrict only quantities (e.g., pounds of TSS per day), only concentrations (e.g., milligrams of TSS per liter of water), or both. By focusing on relative discharges, we are able to compare across all facilities regardless of the effluent limit form. If both quantity and concentration limits apply, the analysis calculates the mean level of compliance. (When constructing the effluent limit regressor, we convert each

concentration limit to a quantity limit using the facility's flow of wastewater.)