

# Chapter 4: Profile of Manufacturers

## INTRODUCTION

Based on the *1982 Census of Manufactures* and information from effluent guideline development materials, EPA identified four industrial categories other than SIC Major Group 49 that are most likely to be affected by the section 316(b) regulation. These industries, referred to collectively here as “manufacturers,” were selected because of their known use of cooling water. They are Paper and Allied Products (SIC 26), Chemicals and Allied Products (SIC 28), Petroleum and Coal Products (SIC 29), and Primary Metal Industries (SIC 33).

While facilities in other industrial groups also use cooling water and may therefore be subject to section 316(b) regulations, their total cooling water intake flow is believed to be small relative to that of the four selected industries. Therefore, this Profile of Manufacturers focuses on the manufacturing groups listed above.

The remainder of this chapter is divided into five sections:<sup>1</sup>

- ▶ 4A: Paper and Allied Products (SIC 26)
- ▶ 4B: Chemicals and Allied Products (SIC 28)
- ▶ 4C: Petroleum and Coal Products (SIC 29)
- ▶ 4D: Steel (SIC 331)
- ▶ 4E: Aluminum (SIC 333/335)

Each industry section is further divided into the following four subsections: (1) domestic production, (2) structure and competitiveness, (3) financial condition and performance, and (4) section 316(b) facilities. Each sector profile only presents data for SIC codes that were identified in the section 316(b) Detailed Industry Questionnaire as important users of cooling water directly withdrawn from a water of the United States.<sup>2</sup>

The Census of Manufactures provided much of the data used in this chapter to analyze trends in each industry. The 1997 Census used North American Industry Classification System (NAICS) codes for the first time, replacing the Standard Industrial Classification (SIC) codes used earlier. This change introduced a discontinuity in the data for some industries for which there is not a one-to-one map between the old SIC codes and the new NAICS codes. For purposes of these profiles, EPA therefore made only limited use of the 1997 Census data, and instead relied where possible on data from other sources to assess economic trends before and after 1997 on a consistent basis.

Demand for the output of all of the industries profiled in this chapter is strongly influenced by overall economic conditions. At the time these profiles were prepared, there was substantial uncertainty about the state of the U.S. and world economies. The U.S. economic expansion that began in 1992 was the longest on record, but a slowing of growth began to become evident in the second half of 2000. It remains uncertain whether the economy will continue to grow, although at a reduced rate, or slip into recession. While some of the data presented in this profile may not reflect the recent economic slowdown, the discussion highlights the effects of current economic conditions on each industry. The forecasts used in Chapter 5 to predict

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<sup>1</sup> Steel and aluminum are the two dominant products in the U.S. industrial metals industry. These two markets, however, are structured differently and are therefore discussed in two separate profile sections.

<sup>2</sup> The electronic version of this report is comprised of six separate files, one for each of the five industries and one for the glossary of terms.

the number of new facilities may not fully reflect the recent slowdown and may overstate growth in the near term. Given the long-term focus of this analysis, EPA believes that it is appropriate to focus on average growth rates over the long-term, despite the uncertainty about near term economic conditions. Post-war contractions in the U.S. economy have averaged 11 months before returning to positive growth.<sup>3</sup> The most recent Congressional Budget forecasts, issued in August 2001, project growth in real GDP of 1.7 percent for 2001 and 2.6 percent for 2002, with a long-term forecast of 3.2 percent per year growth for the period 2003 through 2011.<sup>4</sup>

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<sup>3</sup> The National Bureau of Economic Research dates business cycles and provides historical records of expansions and contractions at <http://www.nber.org/cycles>.

<sup>4</sup> Congressional Budget Office. 2001. *The Budget and Economic Outlook: An Update*. August 28.