## 12.2 Command-and-Control Regulation

### Learning Objectives

By the end of this section, you will be able to:

* Explain command-and-control regulation
* Evaluate the effectiveness of command-and-control regulation

When the United States started passing comprehensive environmental laws in the late 1960s and early 1970s, a typical law specified to companies how much pollution their smokestacks or drainpipes could emit and imposed penalties if companies exceeded the limit. Other laws required that companies install certain equipment—for example, on automobile tailpipes or on smokestacks—to reduce pollution. These types of laws, which specify allowable quantities of pollution and which also may detail which pollution-control technologies companies must use, fall under the category of command-and-control regulation. In effect, command-and-control regulation requires that firms increase their costs by installing anti-pollution equipment. Thus, firms are required to account for the social costs of pollution in deciding how much output to produce.

Command-and-control regulation has been highly successful in protecting and cleaning up the U.S. environment. In 1970, the Federal government created the Environmental Protection Agency (EPA) to oversee all environmental laws. In the same year, Congress enacted the Clean Air Act to address air pollution. Just two years later, in 1972, Congress passed and the president signed the far-reaching Clean Water Act. These command-and-control environmental laws, and their amendments and updates, have been largely responsible for America’s cleaner air and water in recent decades. However, economists have pointed out three difficulties with command-and-control environmental regulation.

First, command-and-control regulation offers no incentive to improve the quality of the environment beyond the standard set by a particular law. Once firms meet the standard, polluters have zero incentive to do better.

Second, command-and-control regulation is inflexible. It usually requires the same standard for all polluters, and often the same pollution-control technology as well. This means that command-and-control regulation draws no distinctions between firms that would find it easy and inexpensive to meet the pollution standard—or to reduce pollution even further—and firms that might find it difficult and costly to meet the standard. Firms have no reason to rethink their production methods in fundamental ways that might reduce pollution even more and at lower cost.

Third, legislators and EPA analysts write the command-and-control regulations, and so they are subject to compromises in the political process. Existing firms often argue (and lobby) that stricter environmental standards should not apply to them, only to new firms that wish to start production. Consequently, real-world environmental laws are full of fine print, loopholes, and exceptions.

Although critics accept the goal of reducing pollution, they question whether command-and-control regulation is the best way to design policy tools for accomplishing that goal. A different approach is the use of market-oriented tools, which we discussed in the next section.