

REGULATORY AGENCIES, SURVEY

(written for *Kirk-Othmar Encyclopedia of Chemical Technology Online*, 4th ed., John Wiley & Sons, Inc., 1/17/2003)

The purpose of Earth Day is the recognition that the environment, including all living things, must be protected. The first Earth Day, April 22, 1970, also marked the beginning of more concentrated attempts to develop regulations covering health, safety, and environmental issues; this effort is still underway in the 1990s.

Regulations change continuously with updates and reauthorizations, and the specifications of these regulations quickly become outdated. Therefore, the discussions in these articles on regulatory agencies provide only an introduction and summary of the U.S. Federal laws and regulations covering health, safety, and environmental issues. These articles should not be used in lieu of legal services. Current copies of the laws and regulations must be consulted in order to deal with specific situations. Many of the laws and regulations can be accessed on the Web, citations are noted throughout this article.

The two main federal agencies involved in the protection of the environment and human health are the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA). EPA's principal concern is the protection of the environment, in most cases, the area outside of an industrial facility. Primary laws covered by EPA are the Clean Air Act Amendments (CAAA), the Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Toxic Substances Control Act (TSCA), and Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

The principal function of OSHA is the protection of people, eg, employees, visitors, and temporary help, in the workplace. The principal law covered by OSHA is the Occupational Safety and Health Act (OSHA). There are ten regional offices that carry out the regulatory functions of both EPA and OSHA (www.epa.gov/epahome/aboutepa.htm#regiontext).

There are a number of other federal agencies involved in related work. Pertinent agencies and their areas of concern are listed in Table 1. The control of the manufacture, use, and exposure to hazardous or toxic chemicals is mainly divided between EPA and OSHA. In addition, the Food and Drug Administration (FDA) has control over chemicals in food, drugs, and cosmetics. The Consumer Product Safety Commission (CPSC) is concerned with the safety of all consumer products, including child-resistant packaging regulations. The U.S. Department of Agriculture (USDA) maintains strict controls over chemicals in food, as well as "gene-modified" food. The specific concerns and requirements of these various laws are considered in detail in the regulatory agency articles pertaining to the specific industries. Additionally, the Department of Transportation (DOT) regulates the handling and transport of materials, including chemicals, by highway, rail, air, and water. Regulations cover training requirements for transporters, types of containers that can be used, labels and placards, incident reporting, etc (see TRANSPORTATION).

In addition to the federal agencies, there are many state agencies, as well as county and municipal agencies, that regulate the environmental and health areas. When state regulations are not as stringent as federal regulations, the federal rulings may take precedence. International laws and regulations must also be taken into account. International transportation requirements can affect shipments of products and raw materials. The use of products can also be affected by international rules.

The difference between laws and regulations is important. For the former, the U.S. Congress first passes a bill, which is then signed by the President, and thereby made a law or act. The act describes what Congress wants regulated, the general method to be used, and the ultimate results expected. It is then the responsibility of the designated agency to write and administer regulations to meet these requirements. First, the agency issues draft regulations that are mainly for internal review. It also tries to obtain the response of the affected portions of the public and industry. Next, proposed regulations are issued in *The Federal Register* (on-line information at http://www.access.gpo.gov/su_docs/aces/aces140.html), a daily document

published by the General Services Administration. A specific comment period is allowed, during which public hearings may be held. The Office of Management and Budget also reviews the regulation, mainly to determine the financial impact of the regulations on industry. Once the comments are received and revisions are made, the final regulations are issued in *The Federal Register*. Every few years, Congress reviews a particular law and its regulations to see how well it is working. At that time, it can be amended, or reauthorized, to make any improvements.

The Federal Register contains, in addition to proposed and final regulations, notices for all of the federal agencies. Twice a year, usually in April and October, the Unified Agenda is published in *The Federal Register*, listing all regulatory activities, from preproposed activities through proposed and final rulemaking. Expected dates for action are given.

Regulations are compiled and listed by agency in the *Code of Federal Regulations* (CFR). The CFR is divided into 50 titles. EPA regulations are in Title 40 while OSHA regulations are listed under Title 20. The listing first gives the number for the agency, then CFR, and then the part, or chapter, and number. An example is the EPA regulations on National Primary and Secondary Ambient Air Quality Standards: 40 CFR 50. *The Code of Federal Regulations* may be accessed on-line at: <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html>. EPA laws, regulations, etc. can be found on-line at: <http://www.epa.gov/epahome/rules.html>. OSHA laws, regulations, etc. can be found on-line at: <http://www.osha.gov/fso/ca.html>. The applicability of many of the government regulations were originally based on the Standard Industrial Classification (SIC) of the process and/or facility. This is also known as the SIC Code and is assigned for tax and financial purposes. Because the classification can determine if a facility falls under certain regulations, it is important to ensure that the classification is correct. The SIC Code consists of four digits, the first two of which show the principal group. For chemicals and allied products, this group is 28. The SIC Code was replaced by the North American Industry Classification System (NAICS) in 1987. NAICS was developed jointly by the U.S., Canada, and Mexico to provide new comparability in statistics about business activity across North America. The official website for the NAICS is <http://www.census.gov/epcd/www/naics.html>. This is the link to the NAICS list: <http://www.census.gov/epcd/naics/naicscod.txt>. And this is the link to a comparison of the SIC Codes and the NAICS: <http://www.census.gov/epcd/www/naicstab.htm>.

An important aspect of environmental, health, and safety laws and regulations is enforcement. Federal, state, and local regulatory authorities tend to have large enforcement sections. In the environmental area, compliance audits are usually conducted annually. OSHA, both federal and state, often audit based on a facility's accident/incident rate.

Penalties for noncompliance are based on the severity of the violation, but is typically \$25,000 per day for each day of noncompliance. When a noncompliance is deemed to be willful, ie, the company knew they were committing a violation, the penalty can include a jail term in addition to the fine. When people or the environment suffer damage, a company can be sued as well.

BIBLIOGRAPHY

"Regulatory Agencies" in *ECT* 3rd ed., Vol. 20, pp. 108-127, by N. R. Passow, C-E Lummus.

"Regulatory Agencies: in *ECT* 4th ed., Vol. 20, pp. , by N.R. Passow, Lonza, Inc.

1. The official 2002 US NAICS Manual North American Industry Classification System-- United States, 2002 includes definitions for each industry, tables showing correspondence between 2002 NAICS and 1997 NAICS, and a comprehensive index. To order the 1400-page 2002 Manual, in print, call NTIS at (800) 553-6847 or (703) 605-6000. The 1250-page 1997 Manual, showing correspondence between 1997 NAICS and 1987 SIC, is also available. A 2002 CD-ROM will be published later. (The NTIS web site does not yet list the 2002 Manual.)

NANCY R. PASSOW
Write For You!