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**Review of Penalties for Violations of
Environmental Statutes in Selected
Countries**

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Introduction

This report provides an overview of penalties levied on violators of pollutant emissions standards in the United States and other countries.

Practices vary among countries, but in general one can usefully distinguish between *civil* and *criminal* penalties for violating emissions standards, and between *judicial* and *administrative* proceedings. Criminal penalties can be difficult to apply, because they require lengthy judicial proceedings to prove criminal intent or negligence on the part of individuals or corporations. Civil penalties tend to be easier to pursue, since it is necessary only to show that a violation of regulations has occurred. Civil penalties have thus come to be more widely used. They can be pursued through administrative actions, which are much less costly than court proceedings, though administrative judgments may still be subject to judicial review. Not all countries have provision for administrative procedures. Some have in place only criminal statutes governing environmental violations.

Typically rates for maximum penalties are set *per day* in which an emitter is in violation, often with a cap for the maximum fine per administrative action or per criminal case. Administrative and judicial authorities usually adjust fines based on considerations including the seriousness of the offence, the intent of the violator, ability to pay of the violator, and benefit to the community of the violator's activities. In many countries, the guidelines for fines can be exceeded based on the judgment of competent authorities, and negotiated or court-ordered settlements can be many times higher than maximum fines listed in schedules.

Cross-country comparisons of sanctions for environmental violations are very difficult to make due to differences in legal codes and other circumstances, so comparisons must be made with great care (Faure and Heine, 2002). These factors should be borne in mind when reviewing the comparison of maximum fines in Table 1, which is intended to provide only a rough guide to the relative magnitude of penalties. In addition to the comparative table, the report contains references to selected web-based resources on the topic.

United States

The current U.S. system for monitoring emissions from stationary sources, monitoring compliance, and levying fines for noncompliance is the result of many years of experience and interaction among government, regulated industries, and the public (Wooley and Morss, 2002). Penalties are one tool of regulatory enforcement. Regulatory enforcement (including civil, criminal and cleanup enforcement) in turn is just one method that United States Environmental Protection Agency (USEPA) uses to ensure compliance. Other methods include compliance assistance, monitoring, auditing and incentives (<http://www.epa.gov/compliance/>).

Penalties for emissions violations in the United States can range from warning notices or small fines issued in field actions, to administrative penalties in the hundreds of thousands of dollars, to legal settlements requiring payments of tens to hundreds of millions of dollars and requirements to install new equipment costing as much as or more than the fines themselves.¹ In most years, the majority of penalties are the result of civil actions. In fiscal year (FY) 2004, for instance, USEPA's civil penalties totaled \$149 million, with administrative penalties averaging over \$12,000 per penalty order and judicial settlements totaling about \$50 million and averaging about \$450,000 per case (Harris, 2004). Criminal fines and restitution, by contrast, totaled \$47 million.

In the early years (1970's and early 1980s), USEPA had difficulty implementing the provisions of the Clean Air Act (CAA). For instance, enforcement actions required the USEPA to go through expensive and time-consuming judicial proceedings and the amounts of penalties were relatively low. New enforcement provisions in the 1990 CAA Amendments, which were modeled after the Clean Water Act, introduced important changes that greatly increased effectiveness. Penalties were increased from \$10,000 per violation to \$25,000, and penalties were allowed to be assessed for *each day* in which an emitter was in violation, allowing imposition of even higher penalties. Later increases in penalties were designed to keep pace with inflation, e.g., the 2004 modifications to penalty policies (EPA, 2004). The maximum penalty for a single violation under the CAA, for instance, was raised from \$27,500 to \$32,500 per day, and the maximum for a single administrative action from \$220,000 to \$270,000. Higher amounts can be sought with the approval of the EPA Administrator and the US Attorney General (USEPA/OECA, 2004).

Under the CAA, USEPA and the courts use a variety of factors in determining the size of penalties (Wooley and Morss, 2002). These include the value of the economic benefit derived from the violation, the seriousness of the violation, ability the violator to pay, the violator's compliance history, and other factors. Detailed guidance has been developed for each regulatory arena for calculation of penalties to provide strong incentives for compliance while maintaining cognizance of the public costs of violations (INECE, 2005).

Settlements can be much larger than the amounts indicated in schedules of maximum penalties. In a recent case, seven diesel engine manufacturers were collectively fined \$1 billion for installing "cheat chips" that allowed their engines to pass laboratory inspections but to exceed emissions standards in actual operation.² Exxon also received fines of about \$1 billion for damage associated with the 1989 Exxon Valdez oil spill in Alaska. There have been many large corporate fines in recent years.³ In February 2005, Illinois Power (Dynergy) was fined \$9 million for new source review violations at a power plant, and the defendant committed to installing a package of emission controls

¹ See <http://cfpub.epa.gov/compliance/cases/> for information on settlements.

² See <http://www.rentar.com/truck%20emissions%20-%20Rentar.htm> for details of this case.

³ David Wooley, personal communication, 18 March 2005.

costing hundreds of millions of dollars. Other examples pertaining to enforcement of the Clean Air Act include:⁴

- In 2002, EPA recovered, and violators will pay, nearly \$40 million in civil and administrative CAA penalties. EPA secured commitments of \$33 million in supplemental environmental projects in 2002.
- Boise Cascade (a major wood products company) paid \$4.35 million in civil penalties and committed to \$18 million in emission control expenditures (2002).
- Conoco will spend \$100 million for pollution control technology and will pay a \$1.5 million civil penalty combined with about \$5 million on environmental projects in communities around the company's refineries.
- Murphy Oil refinery operations will pay a \$5.5 million civil penalty.

In some cases, violators may have their penalties reduced by undertaking supplemental environmental projects (SEPs), which are not legally required but help meet other environmental and community objectives (Wooley and Morss, 2002). Such projects totaled \$48 million in FY 2004, nearly the same amount as criminal fines (Harris, 2004). Unlike SEPs, which directly benefit the communities affected by the violation, funds from administrative and criminal fines go into the federal government's general revenues. Fines are not retained by environmental authorities.

The size of penalties is not the only ingredient to effectiveness of enforcement. The 1990 CAA enforcement provisions also increased transparency and public accountability. Stationary source emitters were required to monitor and record their own emissions, and these reports were and are made public. Information was made available to citizen groups, which could monitor emitters' compliance and pressure USEPA to enforce its own regulations. Provisions were made for citizens who successfully brought suit against emitters in violation of standards would have their legal costs paid for by the defendant (emitter).

In addition to fines, USEPA wields other powerful tactics. The US vehicle emissions compliance program has recall requirements that mandate that if a substantial number of properly maintained and used vehicles fail to meet emissions standards during their useful life they must be recalled and repaired by the manufacturer. Failure to abide by this provision is punishable by fines up to \$10,000 per vehicle. Moreover, if individual vehicles fail to meet standards in use they can be repaired at the expense of the manufacturer under warranty requirements.⁵

Germany

Like the US, Germany distinguishes between criminal and administrative environmental offences. The latter category refers to offenses that are "ethically neutral" and not punishable by imprisonment (Woods and Macrory, 2003). Under administrative procedures, firms can be fined up to €500,000 for violations of environmental

⁴ See <http://cfpub.epa.gov/compliance/resources/reports/accomplishment/details.cfm>

⁵ Michael Walsh, personal communication, 17 March 2005.

regulations. Fines can be used to recover economic benefits obtained through violations. The only type of imprisonment associated with administrative fines would be short-term coercive terms to enforce payment of fines.

Criminal fines are assessed based on daily rates. Maximum fines, depending on the statute violated, can range from €5,000 to €100,000, or alternatively the yearly income of the violator (Huglo Lepage, 2003). Maximum prison sentences vary widely depending on statute, from several months to 10 years.

United Kingdom

Currently, the United Kingdom does not employ administrative penalties for environmental infractions, but their use is under consideration (Woods and Macrory, 2003). The current system is pragmatic and flexible in many respects, but relies on the threat of possible judicial proceedings. Civil sanctions, which are already used in other regulatory arenas in the UK, would add flexibility and responsiveness to the current system.

While criminal fines are increasing, and may range up near £1 million, they are not perceived as having a deterrent effect. In 2002, the average penalty was about £2,100, compared to the maximum of £20,000 per instance of violation (Woods and Macrory, 2003). Fines are not assessed based on a daily rate.

Japan

Environmental regulation in Japan relies more on a paternalistic “managerial” style of enforcement, in which civil penalties of the sort used in the United States are not common. Emissions exceedances causing direct harm may lead to fines for compensation, but generally fines tend to be small. Overall, Japan makes limited use of economic instruments for environmental protection compared to other developed countries (OECD, 2002; Ren, 2000). However, pressure of various means has been effective in ensuring compliances and in correcting instances of non-compliance. As a result, Japan has an enviable record of compliance with environmental laws and regulations.

Other Countries

Penalties for violations of environmental regulations in a number of other countries are summarized in Table 1. Note that some countries without administrative/civil penalties are presently considering whether to institute them. For most of the countries, penalties are assessed on formulas based on daily rates modified by a variety of factors. The literature is often not clear regarding the relationship between daily rates and maximum fines. In most western European countries, the maximum civil or criminal fines for violating the most important statutes regarding water and air pollution and disposal of hazardous wastes range into the hundreds of thousands of euros, and, in some cases, are unlimited by statute and subject to the discretion of the courts.

Concluding Remarks

In general, levels of penalties for environmental offences have been rising across countries, regardless of the type of regulatory system. Minimum penalties are typically small and maxima can be quite large, giving administrative and judicial authorities wide discretionary powers. In many countries, penalties for violations are based on daily rates that can add up to hundreds of thousands of dollars in a single case, or tens of millions of dollars in some recent settlements in the US. Some countries allow unlimited penalties, generally informed by the value of damages or the economic benefit the violator gains by the infraction. These higher penalties are credited with having increased the effectiveness of environmental enforcement and motivating regulatory compliance.

Most systems have become more sophisticated over time in balancing the social and economic benefits of violators' activities against the harm of their offences. Experience in the US has borne this out. Other countries with systems of administrative penalties, notably Germany, have also found them effective. It is in part that record of success that is leading other countries to initiate or expand their systems of civil penalties.

Table 1. Overview of Penalties for Violating Environmental Statutes in Selected Countries

Country	Administrative/Civil Penalties		Criminal Penalties		
	Levels of Fines	Remarks	Levels of Fines	Imprisonment	Remarks
Australia	Maximum A\$550,000 (individual), A\$5.5 million (corporate)	Civil/administrative penalties under review to clarify distinction from criminal penalties			
Austria	Maximum €7 to €36,400	Imprisonment up to 2 months	€2 to €327 per day, total €4 to €117,720	Maximum sentences of 6 months to 3 years imprisonment	Fines adjusted depending on income of violator; maximum fine is 360 times daily rate
Czech Republic			€65 to €161,000	Maximum sentences of 15 years imprisonment	Other sanctions and penalties may be imposed instead of or in addition to fines and imprisonment
Denmark		Civil/administrative penalties under consideration	DKK1,000 – 10,000 (\$180-\$1,800), or 25% of economic benefit of offence	Maximum sentences up to 4 years imprisonment	
Finland			Individual: 1 to 120 “day fines” (day fine = 1/60 th violators’ monthly income); Corporate: €850 to €850,000	Minimum 14 days to maximum 6 years imprisonment	Fines are set at discretion of court; if sentence includes imprisonment, economic benefit of violation can be confiscated
France			Maximum €1,500 to €150,000 (individual), €7,500 to €750,000 (corporate)	Maximum sentences of 1 to 3 years imprisonment	Fines may be doubled for repeat offences; in some cases fines may be one to two time the value of the offence
Germany	Up to €500,000		Fines calculated on day rate system, with maximum fines ranging from €5,000 to €100,000	Maximum sentences of 6 months to 10 years imprisonment depending on statute	In corporate cases, only managers at risk of imprisonment

Country	Administrative/Civil Penalties		Criminal Penalties		
	Levels of Fines	Remarks	Levels of Fines	Imprisonment	Remarks
Greece	Up to €300,000 in cases of severe damage; indemnification			Maximum sentences of 3 months to 10 years	
Hungary				Minimum 1 day to maximum 8 years imprisonment	Alternative penalties not provided for; longer sentences possible
Ireland	Up to £1,000	Up to 6 months imprisonment	Summary offences typically up to £1,500 plus £200 per day after first conviction; maximum £10 million plus £100,000 for continuation after conviction	Maximum sentences of 6 months to 10 years	Fines are unlimited under some statutes
Portugal	Fines of €37.50 up to €25,000 (individual) and up to €45,000 (corporate)	Rates and maxima vary according to statute	Fines calculated on day rate system, with maximum fines from 10 to 600 days, day rate from €1 to €500.	Minimum 1 month to maximum 3 years	
Slovakia	Maximum fines up to €125,000	Fines may be doubled for repeat offences, or offenders who fail to take remedial action	Maximum fines of €25 to €7,500	Maximum sentences of 6 months to 15 years	Longer sentences possible
Spain			Minimum €288 to maximum €21,363	Minimum 6 months to maximum 4 years imprisonment	
Netherlands		Civil/administrative penalties under consideration	€2 to €450,000	Minimum 1 day to maximum 6 years imprisonment	
United Kingdom		Civil/administrative penalties under consideration	Maximum fines from £5,000 to £20,000; fines unlimited on indictment	Maximum sentences typically 3 to 6 months; on indictment up to 5 years	Separate statutes with similar penalties apply in England and Wales, Scotland, and Northern Ireland

Country	Administrative/Civil Penalties		Criminal Penalties		
	Levels of Fines	Remarks	Levels of Fines	Imprisonment	Remarks
United States	\$650 to \$1,000 per violation (day); maximum penalties \$1,200 to \$1,000,000	Varies depending on statute, e.g., max. penalties for CAA are \$32,500 per violation (day) and \$270,000 per action; can be mitigated through Supplemental Environmental Projects	Criminal fines up to \$5,000 to \$50,000 per day (individual) and up to \$1 million (corporate)	Misdemeanors: up to 1 year imprisonment; Felonies: up to 5 years imprisonment	Fines and imprisonment terms vary depending on statute; fines and prison terms can be doubled for repeat offence

Sources: Faure and Heine, 2002; Huglo Lepage, 2003; Jendroška Bar & Partners *et al.*, 2004; INECE, 2005; USEPA, 2004; Woods and Macrory, 2003; Wooley and Morss, 2002.

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Resources

Environment Directorate, Organisation for Economic Co-operation and Development

http://www.oecd.org/department/0,2688,en_2649_33713_1_1_1_1_1,00.html

European Commission: Environmental Crime

<http://europa.eu.int/comm/environment/crime/>

International Network for Environmental Compliance and Enforcement (INECE)

<http://www.inece.org/>

State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO)

<http://www.cleanairworld.org/>

US Environmental Protection Agency

Compliance

<http://www.epa.gov/compliance/>

Civil Penalty Policies

<http://cfpub.epa.gov/compliance/resources/policies/civil/penalty/>

Cases and Settlements

<http://cfpub.epa.gov/compliance/cases/>