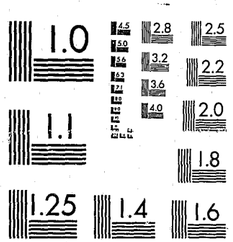

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CORPORATE CRIME

SUBCOMMITTEE ON CRIME

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CONTENTS

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BACKGROUND MATERIAL REQUESTED FOR USE IN THE CONSIDERATION OF H.R. 7040, A BILL REQUIRING DISCLOSURE OF CERTAIN INFORMATION BY BUSINESS ENTITIES

Introduction, scope and limitations

The following was prepared by the Congressional Research Service at the request of the Subcommittee on Crime of the House Committee on the Judiciary. Its purpose is to serve as background material for use in the consideration of H.R. 7040.

Part I consists of a series of background summaries of topics and incidents selected for this purpose by the Subcommittee on Crime. These brief papers are intended as generally chronological summaries based on public documents and committee materials available at the time of writing. For this reason, factual coverage may be incomplete and legitimate defenses and justifications of those involved may not be reflected. The reports are presented in alphabetical order, and were prepared by Geraldine Carr, Robert Civiak, James Mielke, and F. Angelyn Wells of the Science Policy Research Division.

Part II consists of three papers prepared by Raymond Natter of the American Law Division. They are entitled "Summary of H.R. 7040—A Bill Requiring Disclosure of Certain Information by Business Entities," "Fifth Amendment Considerations with Regard to H.R. 7040—A Bill Requiring Disclosure of Certain Information by Business Entities," and "Survey of Selected Federal Statutes Which Provide for Corporate Criminal Liability."

The Appendix includes material on various statutes in other countries which relate to aspects of H.R. 4973, an earlier version of H.R. 7040. This was prepared by the Law Library of the Library of Congress at the request of the Subcommittee on Crime.

PART ONE: BACKGROUND SUMMARIES OF TOPICS AND INCIDENTS SELECTED BY THE SUBCOMMITTEE ON CRIME OF THE HOUSE COMMITTEE ON THE JUDICIARY

BUFFALO CREEK

Background [1]

Buffalo Creek, West Virginia is a mountain hollow, some seventeen miles in length. Three small forks come together at the top of the hollow, to form the creek itself. In early 1972, approximately five

[1] Based primarily on information in: Erikson, Kai T. Everything In Its Path. New York, Simon and Schuster, 1972, pp. 1–27.

thousand people lived in this area, in what amounted to a continuous string of sixteen villages.

Middle Fork served for several years as the site of an enormous pile of mine waste, known as a "dam" to local residents and an "impoundment" to the Buffalo Mining Company. The impoundment was there because it solved two important disposal problems for the company:

1. Each time four tons of coal are removed from the ground, one ton of slag—a wide assortment of waste materials—is also removed,[2] and must be disposed of.

2. Additionally, more than 500,000 gallons of water are required to prepare 4 tons of coal for shipment,[3] and this, too, must be disposed of

The Buffalo Mining Company began to deposit its slag in Middle Fork as early as 1957, and by 1972 was dumping approximately 1,000 tons per day. Traditionally, the company had deposited its solid waste into Middle Fork, and its liquid effluent into nearby streams. However, by the 1960s, coal operators were under a great deal of pressure to retain this water until some of the impurities had settled out of it. The companies were also beginning to see the utility in having a regular supply of processing water on hand. Buffalo Mining Company responded to this by dumping new slag on top of old, in such a way as to form barriers behind which waste water could be stored and reused.

Middle Fork was described as an immense black trough of slag, silt and water, a waste sink arranged in such a way as to create small reservoirs behind the first two impoundments, and a large lake behind the third.[4]

The episode[5]

According to subsequent accounts, during the night of February 25, 1972, Buffalo Mining Company officials continually monitored the Middle Fork waste site. They were reportedly uneasy because the lake water seemed to be rising dangerously close to the dam crest. The past few days had been wet ones, but such seasonal precipitation was not considered unusual. Toward dawn, company officials were concerned enough to have a spillway cut across the surface of the barrier in an effort to relieve pressure. The level continued to rise, but the company issued no public warnings. Testimony disclosed that the senior officials on the site met with two deputy sheriffs who arrived on the scene to aid in an evacuation in the event of trouble. The official contended at the time that everything was under control, and the deputies left.

Just before 8:00 a.m. February 26, a heavy-equipment operator inspected the surface of the dam and found that not only was the water within inches of the crest—which he already knew—but that the structure had softened dramatically since the last inspection.

[2] The slag itself, when dry, is crisp like cinders; when wet, it is viscous, and resembles an oily batter of mud. Wet or dry, it contains combustible materials which may smolder quietly for years or explode in a moment of chemical irritation.
[3] The effluent water is black with coal dust and thick with solids.
[4] Caudill, Harry M. Buffalo Creek Aftermath. Saturday Review, Aug. 26, 1972, p. 16.
[5] Based primarily on information in: Erikson, Kai T. Everything In Its Path. New York, Simon and Schuster, 1972, pp. 27–48.

Within minutes the dam had collapsed. The 132 million gallons of waste water and solids roared through the breach. The wave reportedly set off a series of explosions, raising mushroom-shaped clouds into the air, and picking up "everything in its path." One million tons of solid waste were said to be caught in the flow.

Impact[6]

A 20–30 foot tidal wave traveling up to 30 miles per hour devasted Buffalo Creek's sixteen small communities. More than 125 people perished and hundreds of others were injured. Over 4,000 survived but their 1,000 homes as well as most of their possessions were destroyed.

A few hundred of the 4,000 survivors decided not to accept the settlement for real property damage offered by the coal company as reimbursement. Instead, they brought suit against the Pittston Corporation.

On Wednesday, June 26, 1974, two-and-a-half years after the incident, the 600 or so Buffalo Creek plaintiffs were awarded 13.5 million dollars by the Pittston Corporation in an out-of-court settlement.

FIRESTONE 500

Background

Firstone's involvement in the manufacture of steel-belted radial tires began in the early 1970s when U.S. automobile designers sought from the domestic tire industry a product that would help achieve better gasoline mileage (reduced rolling resistance) and provide a better ride. Radial tires meet these criteria and, in addition, when they are properly made and used, they last longer through improved tread wear and greater resistance to road hazards. With the domestic automobile manufacturers moving toward steel-belted radials, Firestone moved agressively into the steel-belted radial "original equipment" market. Largely by speedy adaptation of existing equipment Firestone became the first domestic tire manufacturer to place these tires in the original equipment market in large quantities.[1] Prior to that time the manufacture of steel-belted radial tires was dominated by European firms, such as Michelin, which had pioneered in developing the technology and had gained several years experience in mastering many of the difficult processes. The American firms entering the belted-radial competition all experienced development problems. However, Firestone appears in the long run to have experienced the most trouble with the technology.[2]

Firestone began marketing its first generation of steel-belted radials in 1971 and introduced the Firestone 500, also considered a first generation steel-belted tire, in 1972. Production data for steel-belted radial tires manufactured by Firestone are given in table 1.

[6] Based primarily on information in: Stern, Gerald M. The Buffalo Creek Disaster: The Story of the Survivors Unprecedented Lawsuit. New York, Random House, 1970. 274 pp.
[1] U.S. Congress. House. Committee on Interstate and Foreign Commerce. Subcommittee on Oversight and Investigations. Safety of Firestone Steel-Belted Radial 500 Tires. Hearings, 95th Congress, 2d session, May 19, 22, 23, and July 10, 1978. Washington, U.S. Government Printing Office, 1978, p. 13 and 225.
[2] U.S. Congress. House. Committee on Interstate and Foreign Commerce. Subcommittee on Oversight and Investigations. The Safety of Firestone 500 Steel Belted Radial Tires. Committee Print. 95th Congress, 2d session, Aug. 16, 1978. Washington, U.S. Government Printing Office, 1978, p. 16–22.

TABLE 1.—FIRESTONE PRODUCTION DATA: STEEL-BELTED RADIAL TIRES MANUFACTURED BY FIRESTONE

Tire line	1971	1972	1973	1974	1975	1976	1977	Totals by tire line
Steel-belted radial	96,789	354,549	47,112			150	715,194	1,213,794
SBR 500		770,288	3,928,474	4,730,183	705,128	302,187	309,312	10,745,572
SBR 500 (new)				1,210,625	4,388,110	5,182,674	1,619,249	12,400,658
SBR TPC			563,345	2,372,639	3,962,151	4,736,116	4,943,275	16,127,526
Radial V–I STL		55,253	650,949	531,859	666,100	456,177	573,984	2,934,322
Cavallino SBR				56,951	135,567	74,386	205,034	471,938
T & C SBR				367,345	435,200	369,388	282,318	1,454,251
SBR 721							5,266,054	5,266,054
Total	96,789	1,180,090	5,189,880	9,269,602	10,292,256	11,121,078	13,464,420	50,614,115

U.S. Congress. House. The Safety of Firestone 500 Steel-Belted Radial Tires. Committee print, op. cit., p. 6.
Source: National Highway Traffic Safety Administration.

The cause for concern

In 1976 the Center For Auto Safety, a private non-profit consumer interest organization, began to notice that they were receiving a disproportionately large number of complaints on Firestone steel-belted radials. When the complaints on Firestone steel-belted radials continued into 1977, the Center conducted a review of all its consumer reports on all tire failures for a selected period of time to compare Firestone tires with those of other companies. The data showed that at that time 50 percent of all tire complaint letters received by the Center For Auto Safety were on Firestone tires and that the vast majoriy of those were on steel-belted radials.[3] Throughout this time the Center also forwarded copies of the Firestone steel-belted radial complaints to the National Highway Traffic Safety Administration and requested a defect investigation. However, the Center apparently did not investigate the complaints, but simply accepted them all at face value (although in some cases there evidently were mitigating circumstances).[4]

Alarmed by the performance of Firestone tires, the Center For Auto Safety, on November 28, 1977, wrote directly to Mario DiFederico, president of the Firestone Tire and Rubber Company, and pointed out that the complaint rate on Firestone tires was three times the average of their market share and that nearly all complaints concerned steel-belted radials. The Center further provided Firestone with copies of the complaints included in its study, based on tires manufactured both by Firestone and by other companies. The Center also suggested that Firestone should shift half of its advertising budget into quality control.[5] Firestone did not respond to the Center regarding this information.

On December 22, 1977, the National Highway Traffic Safety Administration (NHTSA) first asked, then ordered Firestone to provide defect information on Firestone steel-belted radial tires, including lists of accidents, injuries, and deaths reported to have been caused by defective tires.[6] On April 26, 1978, Firestone submitted a list of 213

[3] U.S. Congress. House. Safety of Firestone Steel-Belted Radial 500 Tires. Hearings, p. 100.
[4] U.S. Congress. House. The Safety of Firestone 500 Steel-Belted Radial Tires. Committee Print, p. 67–68.
[5] U.S. Congress. House. Safety of Firestone Steel-Belted Radial 500 Tires. Hearings, p. 101.
[6] Ibid., p. 115.

accidents. By this time the Firestone 500 was in the final stages of being phased out of production on a size-by-size basis, a process which was completed in May of 1978.[7]

In the meantime, NHTSA initiated a survey to determine whether Firestone was the only make that was proving particularly troublesome. It mailed 87,000 survey cards to people who had bought new cars equipped with radial tires. However, the survey was heavily weighted toward new cars equipped with Firestone tires and judged not valid for comparatie purposes. The respondents were asked to indicate the brands of their tires, and to tell whether they had experienced blowouts or other problems. Only 5,400 people, 6.2 percent of those surveyed, responded; but, within this group, Firestone seemed to make the worst showing. The company learned of the results and went into the U.S. District Court in Cleveland for a restraining order to prevent the NHTSA from making the survey results public. Firestone argued that the survey was statistically unsound for a number of reasons, including the small response, and claimed that the publicity would damage the company's business. The order was granted on March 6, 1978. However, Firestone's efforts apparently backfired. Reportedly, people who had been unaware of the radial-tire problem read about the court's action, and began asking what the company had to hide.[8] Furthermore, the incident piqued congressional interest in the matter.

Congressional findings: A serious safety hazard

Congressional inquiry into the safety of Firestone steel-belted radial tires commenced with preparation for hearings by the Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce in April 1978. At that time several reports of deaths and injury caused by failure of the Firestone tire had come before the subcommittee. After hearing testimony from several witnesses including representatives of Firestone, and examining material submitted by Firestone at the subcommittee's request, the subcommittee concluded that Firestone 500 steel-belted radial tires presented an unreasonable risk of continuing accidents, injuries, and death to the motoring public and should be immediately recalled. This conclusion was based on the following findings, quoted from the report of the Subcommittee on Oversight and Investigations:[9]

(1) Failure of the Firestone 500 Steel-Belted Radial have caused and are continuing to cause an extraordinary number of accidents, injuries, and deaths. Accidents attributable to the "500" numbers in the thousands, injures in the hundreds, and known fatalities as of August 1978, 34. . . . Regardless of the mix of product defect and other contributing factors in each case, an overall pattern of Firestone "500" failures associated with human destruction is undeniable.

(2) The rate of failure of Firestone 500 Steel-Belted Radial tires, while not precisely known, is exceedingly high. Evidnce of a high rate of failure includes:

(a) The high adjustment rate for the Firestone 500 Steel-Belted Radial.

An "adjustment rate" is the percentage of tires produced by a company which it accepts back from customers because of some problem with tires that occurs before their useful tread is worn. The customer is allowed a credit (or "adjust-

[7] Ibid., p. 414.
[8] Louis, Arthur M., Lessons From the Firestone Fracas. Fortune, Aug. 28, 1978, p. 47.
[9] U.S. Congress. House. The Safety of Firestone 500 Steel-Belted Radial Tires. Committee Print, pp. 1–2.

ment") for the remaining tread life, to be applied toward the purchase of replacement tires. Tires are adjusted for reasons other than failures, including "policy adjustments" or adjustments to keep customers satisfied. A tire's failure rate is therefore some fraction of the adjustment rate.

In July of 1978 Firestone disclosed to the subcommittee and adjustment rate for the 500 which is considerably higher than the 7.4-percent figure confirmed by Firestone in May. Of the 23,553,635 Steel Belted Radial 500's produced from 1972 through the first 3 months of 1978, 4,124,354 have been returned for adjustment, producing an adjustment rate of 17.5 percent.

This adjustment rate compares to the rate for other steel-belted radials made by Firestone, as follows:

	Produced Jan. 1, 1971–Mar. 3, 1978	Adjusted	Adjustment rate (percent)
SBR 500	23, 553, 635	4, 124, 354	17. 50
All other Firestone SBR	30, 398, 357	1, 681, 321	5. 53

The adjustment rate of 5.53 percent for all Firestone steel-belted radials excluding the 500 is of the same order of magnitude as comparable rates for other companies. The overall rate for the Firestone 500 Steel-Belted Radial stands out at three times the norm.

(b) The significant number of claims settled by Firestone by means of cash payments for damage caused by tire failures.

When tires fail on the road, they often come apart with enough force to damage other parts of the vehicles. Firestone has established a claims department to handle requests for reimbursement of the costs of repairing such damage. Firestone accepts responsibility if an inspection of the tire shows the failure to be Firestone's fault. For the period January 1, 1975, to April 1, 1978, Firestone made 7,094 payments for claims arising out of failures of its various lines of steel belted radials. The claims for the "500" and other lines of Firestone steel belted radials compared as follows:

Claims settled by cash payments—Firestone steel-belted radial tires, Jan. 1, 1975, to April 1, 1978.

	Production	Number of claims settled	Total dollar payments
SBR 500	23, 553, 635	5, 262	$1, 321, 992
All other Firestone SBR	30, 398, 357	1, 832	328, 814

The average amount paid on claims associated with the 500 during this period was $251.23. Forty-nine of these claims exceeded $1,000, and the highest was $108,000.

(c) The high average number of failures reported per customer.

In 834 letters received by the subcommittee over the 10-week period following the subcommittee's hearings, users of Firestone 500 Steel-Belted Radials have experienced a total of 3,384 separate tire failures, for an average of 4.06 failures each.

(d) The experience of fleet operators, whose vehicles equipped with Firestone 500 Steel-Belted Radials have experienced large numbers of similar failures.

These findings, a high propensity to fail, and the potential for injury and death inherent in virtually any tire failure, lead to the conclusion that there is a continuing high level of safety risk in the Firestone 500 Steel-Belted Radial and any tires of identical internal construction still on the road.[10]

[10] U.S. Congress. House. The Safety of Firestone 500 Steel-Belted Radial Tires. Committee Print, pp. 1–2.

Firestone's response

Firestone denied wrongdoing, responding to the congressional investigation and allegations of a defective product, first that radial tire failure is often due to driving with improperly low inflation pressures. Secondly, Firestone cited the considerable body of adverse publicity concerning alleged problems generated by the media which stirred up concern that it claimed, would not otherwise have existed.

Firestone also offered additional explanations for the higher than ordinary adjustment rate for the "500" as follows:[11]

Firestone's larger production of steel-belted radials when the tire first came into heavy demand for installation on new cars;

The longer life of radials allowing for greater opportunity for disablement;

The problems owners had in adjusting to the "underinflated look" of a radial; and

The fact that Firestone extended more liberal adjustment policies for the "500's" as its top-of-the-line tire.

In the nature of a rebuttal, the subcommittee report on the hearings concluded that Firestone cannot claim to have cornered more than its share of the Nation's underinflators as purchasers of the "500."[12] Underinflation might account for some, but not all, of the high adjustment rate for the "500."

Corporate knowledge of the problem?

Data provided by Firestone (table 2) suggests that Firestone may have known as early as 1973 that large numbers of low mileage tires were being returned to dealers for various reasons. In that year, 5.48 percent of Firestone's 1972 production of over a million steel-belted radial 500s were adjusted, including many for failure problems (although the precise number of failures cannot be determined).

Additional evidence that Firestone may have been aware of major failure problems with their "500" steel-belted radial tires as early as November 1972 came from documents released by NHTSA after the Firestone recall decision reached by NHTSA in the fall of 1978. According to a description of these in the Washington Post, a memorandum to the then-vice president for tire production, Marlo DiFederico, on November 2, 1972, Firestone's director of tire development, Thomas Robertson, warned that problems with the steel-belted tires were so bad that the company was in danger of losing its business with Chevrolet because of separation failures.[13]

Finally, Firestone confirmed that it had knowledge of tire test results in late 1975, indicating that some of its steel-belted radial tires failed to measure up to acceptable standards after a year or two of storage. This disclosure came in July 1978 after the Akron Beacon Journal had obtained computer printouts of the results.[14]

[11] U.S. Congress. House. Safety of Firestone Steel-Belted Radial 500 Tires, pp. 204–407.
[12] U.S. Congress. House. Safety of Firestone 500 Steel-Belted Radial Tires. Committee Print, p. 41.
[13] Kramer, Larry. Firestone Officia's Knew About Tire Faults in 1972. Washington Post, Dec. 22, 1978, pp. A1, A4.
[14] Winter, Ralph E. Firestone Tests in 1975 Showed Some Tire Flaws. Wall Street Journal, July 24, 1978, pp. 2, 15.

TABLE 2.—TOTAL PRODUCTION AND SUBSEQUENT ADJUSTMENT--TYPE TIRE; STEEL-BELTED RADIAL 500 (5 RIB)

Year produced	Production	Adjustments 1972	1973	1974	1975	1976	1977	1978	Cumulative total	Percent
1972	[1] 1,100,348	[2] 0.14	[2] 5.48	9.96	10.37	5.56	2.21	0.19	373,147	33.91
1973	3,975,544	----	.45	3.38	8.59	8.50	4.14	.35	1,010,352	25.41
1974	4,730,451	----	----	.60	4.78	9.93	6.52	.62	1,061,981	22.45
1975	705,128	----	----	----	1.50	11.56	15.26	1.54	210,521	29.86
1976	299,431	----	----	----	----	2.16	5.62	1.21	26,898	8.98
1977	304,925	----	----	----	----	----	1.16	.47	4,977	1.63
1978 (3 mos)	38,138	----	----	----	----	----	----	.06	23	.06
Total	11,154,006	----	----	----	----	----	----	----	2,687,899	[3] 24.10
With additions cited in footnote 4 below									233,119	2.09
Total									2,921,018	26.19

[1] Number produced.
[2] Number of adjustments for the year or percent or both.
[3] Production weighted.
[4] In addition, there were adjustments of certain tires whose year of manufacture could not be determined. These adjustments totaled 2.09 percent of all tires manufactured over the total period of production.

Note: Because of the manner in which Firestone's adjustment data is kept, it has been thus far impossible for the production years 1972 and 1973 to separate adjustment figures for the Steel-Belted Radial 500 from adjustment figures for other Firestone steel-belted radial tires. The production and adjustment figures for those production years include, therefore, adjustment figures for an indeterminate number of other steel-belted radial tires.

Source: Firestone Tire & Rubber Co.
From: U.S. Congress. House. The Safety of Firestone 500 Steel-Belted Radial Tires. Committee Print, p. 29.

Epilogue

Citing thousands of reported failures, the National Highway Traffic Safety Administration issued an initial determination on July 9, 1978, finding Firestone 500 Steel-Belted Radial tires defective. Subsequently, a recall was ordered on October 20 and a final agreement was signed on November 29, 1978, between Firestone and NHTSA ironing out details of the recall. Under this agreement the company would recall and replace free all 5-rib 500 Steel-Belted Radials (including private brands of the same internal construction) manufactured and sold from September 1, 1975, to January 1, 1977, and all 7-rib 500 Steel-Belted Radials made and sold between September 1, 1975, and May 1, 1976. This recall would involve some 7.5 million tires estimated still to be in service. In addition, Firestone agreed to offer an exchange of new tires at half price for some 6 million Steel-Belted Radials sold prior to the 3-year legal limitation on free replacements, and not covered by the recall.

FORD PINTO

Background

The Ford Pinto two-door sedan was introduced on September 11, 1970, as a 1971 model year vehicle. A three-door runabout version was introduced in February 1971 and the Pinto station wagon model was brought out on March 17, 1972. The design and location of the fuel tank in the Ford Pinto, and identically designed Mercury Bobcat, were unchanged until the 1977 model year when revision was required to meet new Federal safety standards for rear impact collisions. By that time over 1.5 million two- and three-door Pinto sedans and nearly 35,000 Bobcat sedans had been sold. Because of the different configuration of the station wagon model, the fuel tank

was mounted differently and, consequently, was less susceptible to damage from rear end collisions. Production statistics for the pre-1977 Pinto and Bobcat by model year are given in tables 1 and 2.

TABLE 1.—PRODUCTION STATISTICS FOR THE PRE-1977 FORD PINTO

	2-door sedan	3-door sedan	Station wagon	Totals
Model year:				
1971	267,694	59,173	0	326,867
1972	171,616	187,657	96,221	455,494
1973	109,080	141,440	204,514	455,034
1974	120,911	159,999	217,351	498,261
1975	58,697	63,129	83,137	204,963
1976	86,842	87,101	99,138	273,081
Total	814,840	698,499	700,361	2,213,700

TABLE 2.—PRODUCTION STATISTICS FOR THE PRE-1977 MERCURY BOBCAT

	3-door runabout	Station wagon	Totals
Model year:			
1975	14,605	17,851	32,456
1976	20,212	21,207	41,419
Total	34,817	39,058	73,875

The 1971–1976 Pinto fuel tank is constructed of sheet metal and is attached to the undercarriage of the vehicle by two metal straps with mounting brackets. The tank is located behind the rear axle. Crash tests at moderate speeds have shown that, on rear-impact collisions, the fuel tank is displaced forward until it impacts the differential housing on the rear axle and/or its mounting bolts or some other underbody structure.

The cause for concern

Public awareness and concern over the Pinto gas tank design grew rapidly following the 1977 publication of an article by Mark Dowie in Mother Jones, a West Coast magazine. This article was widely publicized in the press and reprinted in full in Business and Society Review. The article, based on interviews with a former Ford engineer, alleged that Ford Motor Company had rushed the Pinto into production in much less than the usual time in order to gain a competitive edge. According to the article, this meant that tooling began while the car was still in the product design stage. When early Ford crash tests allegedly revealed a serious design problem in the gas tank, the tooling was well under way.[1] Rather than disrupt this process, at a loss of time and money, to incorporate more crashworthy designs which Ford allegedly had tested, the article stated that the decision was made to market the car as it was then designed.

The Dowie article further included calculations reportedly contained within an internal company memorandum showing that the costs of making the fuel tank safety improvement ($11 per car) were

[1] Dowie, Mark. How Ford Put Two Million Firetraps on Wheels. Business and Society Review, No. 23, fall 1977, pp. 46–55.

not equal to the savings in lives and injuries from the estimated proportion of crashes that would otherwise be expected to result in fires. These "benefits" were converted into dollar figures based on a value or cost of $200,000 per death and $67,000 per injury, figures which were obtained from NHTSA. In addition the article stated that Ford had lobbied for eight years to delay the Federal standard for fuel tank safety that came into force with the 1977 model year. The article alleged that Ford's opposition to Federal Motor Vehicle Safety Standard 301 was stimulated by the costly retooling that would have been required when the Pinto was first scheduled for production. In response, a Ford official characterized the allegations made in the Dowie article as distorted and containing half-truths.[2]

The NHTSA investigation

Based on allegations that the design and location of the fuel tank in the Ford Pinto made it highly susceptible to damage on rear impact at low to moderate closing speeds, the National Highway Traffic Safety Administration (NHTSA) initiated a formal defect investigation on September 13, 1977. In response to the NHTSA's requests, Ford provided information concerning the number and nature of known incidents in which rear impact of a Pinto reportedly caused fuel tank damage, fuel system leakage or fire. Based on this information and its own data sources, in May 1978 NHTSA reported that, in total, it was aware of 38 cases in which rear-end collisions of Pinto vehicles had resulted in fuel tank damage, fuel system leakage, and/or ensuing fire. These cases had resulted in a total of 27 fatalities sustained by Pinto occupants, of which one is reported to have resulted from impact injuries. In addition, 24 occupants of these Pinto vehicles had sustained non-fatal burn injuries.[3]

In addition the NHTSA Investigation Report stated that prior to initial introduction of the Pinto for sale Ford had performed four rear impact barrier crash tests. However as Ford reported, "none of the tested vehicles employed structure or fuel system designs representative of structures and fuel systems incorporated in the Pinto as introduced in September 1970."[4] These tests were conducted from May through November 1969.

Following initial introduction of the Pinto for sale, Ford continued a program of rear impact tests on Pintos which included assessment of post impact conditions of the fuel tank and/or filler pipe. Reports of 55 such tests were provided to NHTSA, including tests of Mercury Bobcats. Three items developed a history of consistent results of concern at impact speeds as low as 21.5 miles per hour with a fixed barrier: (1) the fuel tank was punctured by contact with the differential housing or some other underbody structure; (2) the fuel filler neck was pulled out of the tank; and (3) structural and/or sheet metal damage was sufficient to jam one, or both, of the passenger doors closed.[5] Review of the test reports in question suggested to the NHTSA investigators that Ford had studied several alternative solutions to the numerous instances in which fuel tank deformation, damage or leakage occurred during or after impact.[6]

[2] New York Times, Aug. 11, 1977, p. A–15.
[3] National Highway Traffic Safety Administration. Office of Defects and Investigation Enforcement. Investigation Report, Phase I. Alleged Fuel Tank and Filler Neck Damage in Rear-End Collisions of Subcompact Passenger Cars, 1971–1976 Ford Pinto, 1975–1976 Mercury Bobcat. May 1978. p. 4.
[4] Ibid., p. 7.
[5] Ibid.

The NHTSA investigation concluded that the fuel tank and filler pipe assembly installed in the 1971–1976 Ford Pinto is subject to damage which results in fuel spillage and fire potential in rear impact collisions by other vehicles at moderate closing speeds. Further, examination by NHTSA of the product liability actions filed against Ford and other codefendants involving rear impact of Pintos with fuel tank damage/fuel leakage/fire occurrences, showed that at that time nine cases had been completed. Of these, the plaintiffs had been compensated in 8 cases, either by jury awards or out-of-court settlements.

Following this initial determination that a defect existed and less than a week before a scheduled NHTSA public hearing on the Pinto fuel tank problem, Ford agreed to a voluntary recall.

Criminal charges

On September 12, 1978, following an accident involving the burning and death of three young women in a Pinto, a county grand jury in Indiana indicted Ford Motor Company on three counts of reckless homicide and one count of criminal recklessness. The charge of reckless homicide was brought under a 1977 revision of the Indiana Penal Code that allows a corporation to be treated as a person for the purposes of bringing criminal charges. On March 13, 1980, more than two months after the trial began, the jury found Ford not guilty.[7]

KEPONE

Background

Kepone is an acaricide [1] for citrus red mite, in addition to having other uses as a pesticide. Both kepone and mirex were used as stomach poisons in the form of bait to control slugs, snails, roaches, and fire ants. Kepone was also incorporated in the formulation of other pesticide mixtures.

The National Institute for Occupational Safety and Health (NIOSH) has identified fewer than 50 establishments which processed or formulated pesticides using kepone, and has estimated that 600 workers were potentially exposed to this chemical. (NIOSH is unaware of any plant in the United States which is currently manufacturing kepone. Life Science Products in Hopewell, Virginia, the only known U.S. plant to have manufactured it, was closed in July 1975.)[2]

Nearly all of the compound manufactured in the United States was for export purposes, and all U.S. registered products containing the substance were cancelled on or before May 1, 1978.[3]

[6] Ibid.
[7] The staff of the Subcommittee on Crime wishes to note at this point that in the Indiana Pinto trial, the question of whether or not Ford Motor Co. officials knowingly or recklessly concealed knowledge of hidden serious dangers was not permitted by the trial judge to be placed in issue. Evidence along these lines was not permitted to go to the jury. Thus, no court or jury has yet ruled as to whether or not any corporate coverup occurred in the Pinto case.
[1] A type of pesticide having the power to kill acarids, i.e., mites and ticks.
[2] U.S. Department of Health, Education, and Welfare. National Institute of Occupational Safety and Health. Occupational Diseases—A Guide to Their Recognition. Washington, U.S. Government Printing Office, June 1977.
[3] Ibid.

The episode [4]

In early July 1975, a private physician submitted a patient's blood sample to the Center for Disease Control (CDC) to be analyzed for kepone. The sample had been obtained from a Life Science Products, Hopewell, Virginia, production worker who suffered from weight loss, nystagmus (involuntary movement of the eyeball), and tremors. CDC notified the Virginia State epidemiologist that high levels of kepone were present in the blood sample, and he initiated an epidemiologic investigation which revealed other employees suffering with similar symptoms. It was evident to the State official after visiting the plant that the employees had been exposed to kepone at extremely high concentrations through inhalation, ingestion and skin absorption. He recommended that the plant be closed, and on July 24, 1975, the Life Science Products chemical plant in Hopewell, Virginia, having been under contract with Allied Chemical Corporation for 18 months, did close down.

During its existence, Life Science Products had discharged kepone in its waste effluent. In November 1973, the city of Hopewell had permitted the company to discharge into the municipal sewage system, provided its wastes would not interfere with the city's "activated sludge system". Kepone was subsequently discharged into the Hopewell sewage system, which damaged the facility's biota, and the kepone-contaminated sewage effluent then was discharged into a tributary of the James River. (Further investigations revealed that Allied Chemical Corporation, which had manufactured kepone in earlier years at its Hopewell Semi-Works plant, previously had discharged kepone into the James River.)

Recognition of the problem and action to abate the kepone contamination was delayed. For seven months (November 1973–July 1974) the city of Hopewell failed to report this information to either the State Water Pollution Control Board or to the U.S. Environmental Protection Agency (EPA). The city finally notified the Water Board of the problem and of the actions of the Life Science Plant and said that the contamination problem would be corrected. The regional office of EPA subsequently discovered that the treatment facility was virtually inoperable. (It was not until November 1974 that the EPA was notified of the kepone-caused breakdown of this treatment facility.) For the next eight months, action to abate the pollution problem was complicated by a lack of data on controlling discharges, and extensions permitting continued discharge while Life Science and the regulatory authorities tried to work out an agreement on pollution control. Further discussion of the elements necessary to bring the plant into compliance proved futile until the plant finally was closed for occupational and health reasons.

Impacts

Kepone production and discharge seriously affected the health of Life Science Products employees and the water quality of the James River.

[4] This section is based primarily on information in: U.S. Congress, Senate, Committee on Agriculture, Nutrition, and Forestry, Subcommittee on Agricultural Research and General Legislation. Kepone Contamination. Hearings, Jan. 22, 23, and 27, 1976. Washington, U.S. Government Printing Office, 1976. (94th Congress, 2d session.)

1. Workers [5]

At congressional hearings, employees testified that kepone dust was generally present both inside and outside the plant. Dr. R. S. Jackson, a Virginia State epidemiologist, concurred. He stated, upon inspection of the plant in July 1975, that there was "massive building, air, and ground contamination with kepone . . . a chemical odor strong enough to irritate the eyes . . . and no evidence of personal protection equipment except for hard hats. . . ." [6]

Material presented at the April 21, 1976 congressional hearing noted that employees began to experience symptoms of kepone poisoning within three weeks of the start of the plant's operation. Of the 113 current and former employees of this kepone manufacturing plant who were examined, more than half exhibited clinical symptoms of kepone poisoning. Medical histories of tremors (called "kepone shakes" by the employees), visual disturbances, loss of weight, nervousness, insomnia, pain in the chest and abdomen, and, in some cases, infertility and loss of libido were reported. The employees also complained of vertigo and lack of muscular coordination. The intervals between exposure and onset of the signs and symptoms varied between patients, but appeared to be dose-related.

During 16 months of operation, Life Science Products had a 400–500 percent turnover of personnel, which has been attributed largely to poor working conditions and worker illness.

An additional health risk to the employees was recognized in April 1976, when NIOSH received a report on a carcinogenisis bioassay of technical grade kepone, which was conducted by the National Cancer Institute using Osborne-Mendel rats and B6C3F1 mice.[7] Kepone was administered in the diet at two tolerated doses. In addition to the externally observable signs of toxicity which were seen in both species of rodent, a significant increase of hepatocellular carcinoma (liver cancer) in rats given large dosages of kepone and in mice at both dosage levels was found. Rats and mice also had extensive hyperplasia of the liver.

In view of these findings, NIOSH has determined that kepone is a potential human carcinogen.

The carcinogenicity of this pesticide, as well as its toxic effects on the reproductive and central nervous systems, were reportedly discovered in the early 1960's through studies sponsored by the manufacturer, Allied Chemical Corporation.

2. James River [8]

The State of Virginia requested that the EPA conduct a survey to determine the extent of kepone contamination of the James River.

[5] This sub-section is based primarily on information in "Summary of Hearings on Kepone Contamination," prepared by the Energy and Natural Resources Policy Division, Congressional Research Service, Library of Congress, for the Subcommittee on Agricultural Research and General Legislation of the Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, Apr. 21, 1976. The report is included in Worker Safety in Pesticide Production, hearings, Dec. 13 and 14, 1977. Washington, U.S. Government Printing Office, pp. 352–395. (95th Congress, 1st session.)

[6] Ibid., p. 372.

[7] U.S. Department of Health, Education, and Welfare, National Institutes of Health, National Cancer Institute. Carcinogenesis BioAssay of Technical Grade Clordecone (Kepone). Bethesda, Mar. 12, 1976.

[8] U.S. Environment Protection Agency, Office of Water and Hazardous Materials Criteria and Standards Division. Mitigation Feasibility for Kepone Contaminated Hopewell/James River Areas. Washington, June 9, 1978.

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Water column, sediment, aquatic biota, soil, ground water, and runoff samples were analyzed for kepone residue. EPA submitted its initial finding in December 1975, prompting the Governor of Virginia to close the entire James River and its tributaries from Hopewell to the Chesapeake Bay for the taking of shellfish and finfish until July 1, 1976. This ban is still in effect; however it has been amended to allow the taking of self-purging oysters and clams, shad, herrings, turtles, catfish, and baby eels. Blue crab harvest is allowed in certain areas under certain conditions. In congressional testimony, Virginia Governor Mills Godwin reported that some 3,500 families were without livelihood because of the damage resulting from this contamination.[9]

During 1977, the State of Virginia estimated that it had expended nearly $1.7 million to combat the problem,[10] and the EPA itself has estimated that for a period extending into 1978 it expended (or contracted to spend) $3.5 million in an effort to handle this contamination.[11] The cost of containing kepone in the small bay which feeds the James River, is estimated to be $20–30 million.[12]

The U.S. Department of Justice notified Allied Chemical Corporation in late 1976 that it must pay a significant portion of the containment, cleanup and removal costs.[13]

The total health and economic impact of the kepone episode will not be known for some time to come. In addition to those damages suffered by the Life Sciences Products employees, there have been losses to commercial harvesters of fishery resources, losses because of consumer concern over marketable seafood products, as well as losses due to many recreational activities the river no longer can accommodate.[14]

LOVE CANAL

Background

In 1892, William Love envisioned a model city involving industry powered by hydroelectric power. He began to construct the city by digging a canal about six miles east of the Niagara River to the hydroelectric facility. The canal was excavated out of clay, a suitable base for a canal. But, due to financial and technical reasons, the project was abandoned in 1910 and the canal site remained unused for over 30 years.

In the early 1940s, Hooker Chemical Company obtained permission to dispose of chemical residue from its Niagara Falls operation in the Love Canal site. Finally, in 1947, Hooker purchased the site. The canal site is approximately 3,000 feet long and 60 feet wide. The property purchased was approximately 200 feet wide, and the entire area covered 15 acres.

[9] U.S. Congress. Senate. Committee on Agriculture. Nutrition and Forestry. Kepone Contamination. p. 8.
[10] U.S. Congress. Senate. Committee on Agriculture, Nutrition, and Forestry. Subcommittee on Agricultural Research and General Legislation. Worker Safety in Pesticide Production. Dec. 13–14. 1977. Washington, U.S. Government Printing Office. 1978, p. 70.
[11] Allied Chemical Corporation. Annual Report 1977 (Morristown, N.J.). p. 42.
[12] Allied Chemical Corporation. Form 10–K. Annual Report Pursuant to Section 13 to 15(d) of the Securities Exchange Act of 1934, for fiscal year 1976, p. 9.
[13] Ibid.
[14] Gabel, M. Phillip. Interim Report: An Analysis of the Economic Impact of Kepone Pollution on the Major Industries of the Chesapeake Bay Area and the Commonwealth of Virginia. Aug. 31. 1976 (unpublished). This study covers the period. July 1975 through December 1976, and estimates that loses to these industries will approximate $30.4 million.

Between 1942 and 1947, chemical waste was disposed of in the northern section of the Love Canal site. From 1946 to 1952, the southern section of the site was used. Hooker accumulated the chemical waste in 55 gallon drums at the plant and then removed the drums to the canal site where they were placed in a deep clay cavern and covered with four feet of clay. Over 22,000 tons of chemicals, mostly chlorinated organics, were buried there.[1]

By 1952, the Niagara Falls Board of Education began to express interest in purchasing the Hooker property for a school. Although at the time there were only 25 homes in the area, the school board anticipated growth and development there. Hooker deeded the property to the school board in 1953 for $1 with the stipulation that the deed include a clause that gave notice to the school board's full knowledge of the site's past use and under which the school board and its successors assumed the risk of liability for claims that might result from the buried chemicals. The deed also stated that the school board could not file a claim against Hooker for the past use of its land. The deed states:

> Prior to the delivery of this instrument of conveyance, the grantee herein has been advised by the grantor that the premises above described have been filled, in whole or in part, to the present grade level thereof with waste products resulting from the manufacturing of chemicals by the grantor of its plant in the City of Niagara Falls, New York, and the grantee assumes all risk and liability incident to the use thereof, no claim, suit, action, or demand of any nature whatsoever shall ever be made by the grantee, its successors or assigns, against the grantor, its successors or assigns, for injury to a person or persons, including death resulting therefrom or loss or damage to property caused by, in connection with or by reason of the presence of said industrial wastes. It is further agreed as a condition thereof that each subsequent conveyance of the aforesaid lands shall be made subject to the foregoing provisions and conditions.[2]

The school board constructed an elementary school on the land adjacent to the central part of the site, the part which had not been used by Hooker for disposal of chemicals. Subsequently, portions of the central area which were previously left unfilled were filled primarily with municipal refuse, fly ash, and cinders, and eventually a playground was built.

The board of education subsequently deeded the northern section of the site to the city to build a park and the southern end to private developers. With the building of the school, the adjacent properties were quickly developed. By 1964, there were more than 150 homes: by 1976 there were more than 200 homes in the area.

No homes were built directly over the disposal site.[3]

Episode

In 1976, after six years of unusually heavy rain and snowfall, the chemicals began seeping into basements. Rain had filled the canal and was prevented by the canal's clay bed and banks from percolating deeper. The canal overflowed. Chemicals that had leaked from the now decayed drums entered the surrounding environment.

[1] U.S. Congress. House. Committee on Interstate and Foreign Commerce. Subcommittee on Oversight and Investigations. Hearings. Hazardous Waste Disposal. 96th Congress. 1st session. pt. I: Mar. 21 and 22; Apr. 5 and 10: May 16, 23, and 30, 1979, pp. 502–503. [Hereafter referred to as Hazardous Waste Disposal Hearings, pt. I.]
[2] Ibid., p. 502–503.
[3] Ibid., p. 504.

In late 1976, local authorities received complaints from Love Canal residents of odors and chemicals in their sump pumps. By 1978, many of the area homes were found to be infiltrated by highly toxic chemicals that had percolated into the basements.

In August 1978, the New York State Department of Health termed the Love Canal area "a grave and imminent peril" to the health of those living by it.[4] Investigating residents' complaints of abnormal numbers of miscarriages, birth defects, cases of cancer, and a variety of other illnesses, the New York State Department of Health found that hazardous chemical wastes had leaked from the rotted drums, and had entered the area's homes and the air, water, and soil. At least 82 different chemical compounds were identified, 11 of them actual or suspected carcinogens. Air monitoring equipment identified pollution levels ranging as high as 5,000 times the maximum safe levels.[5]

In August 1978, Dr. Robert P. Whalen, New York State Health Commissioner recommended that pregnant women, and children under 2 years of age residing in the Love Canal area be evacuated. Dr. Whalen reported no evidence of acute illness at the site, but said there was "growing evidence . . . of subacute and chronic health hazards as well as spontaneous abortions and congenital malformations." [6] Thirty-seven families were immediately evacuated and their homes boarded up. The elementary school was closed and the site was enclosed by a barbed wire fence. President Carter declared Love Canal a disaster area and Federal assistance was made available to the residents.

As of July 1979:

(1) 263 families had been evacuated; 263 homes had been purchased by the State of New York; 1,000 additional families had been advised to leave their homes;

(2) housing values were down to zero;

(3) $27 million had been appropriated by municipal, State and Federal agencies for providing temporary housing, closing off the contaminated areas and containing the leachate;

(4) 900 notices of claims had been served against Niagara Falls, Niagara County, and the Board of Education for $3 billion in damages to health and property.[7]

Documents

In hearings before the House Committee on Interstate and Foreign Commerce's Subcommittee on Oversight and Investigation on April 10, 1979, the Hooker Chemical Company testified that it was absolved of all liability for the Love Canal site in the deed of sale to the Niagara Falls Board of Education. Bruce Davis, Executive Vice-President for Hooker Chemical, testified that even though the company was no longer liable for the site, Hooker cooperated with the city in efforts to provide remedial assistance to reconstruct the capping of the chemicals when leaks were discovered.

[4] Council on Environmental Quality. 10th Annual Report on Environmental Quality, p. 176.
[5] Ibid., p. 177.
[6] Ibid.
[7] Ibid.

At the hearings, the subcommittee released documents that showed that Hooker knew about hazards associated with Love Canal as early as 1958. A June 18, 1958 Hooker inter-office memo recounted a report that children had been burned at the Love Canal site. According to the memo, Mr. R. Fadel, then Inspector for the City Engineering Department, had informed Arnold Arch of the City Air Pollution Control Department that "three or four children had been burned by material at the old Love Canal property." [8] Two men from Hooker visited the area which was formerly a dirt road. Although this area was north of the area where Hooker had been dumping, the memo said,

> They [the two workers] did notice that in the northerly portion of the tract the ground had subsided and the ends of some drums which may have been thionyl residue drums were exposed and south of the school there is an area where benzene hexacholide spent cake was exposed . . . It was their feeling that if children had been burned it was probably by getting in contact with this material.[9]

The Hooker workers did advise the company that the area should be recovered. "It is their suggestion that these areas be recovered to avoid any contact." [10] Although Hooker Chemical had sold the property to the Niagara Falls School Board with the expressed purpose of using the land to build a school, the document stated that the area was being used as a playground. "It was also noted that the entire area is being used by children as a playground even though it is not officially designated for that purpose." [11]

The Hooker Chemical Corporation testified that the company had warned school officials about leaking toxic chemicals: "We advised the school board again of the hazard of the material as indicated by Mr. Bryant's discussion with Mr. Salacruse." [12] But, reportedly there is no corroboration for this statement. In a search of the Niagara Falls Board of Education records for written documents confirming these actions, no record was discovered.[13] Jerome Wilkenfield, Supervisor of Industrial Wastes for Hooker in 1958, also testified that on several occasions Hooker recovered the material in the Love Canal area when requested by the Niagara Falls School Board.[14] Following the 1958 incident where children were burned at Love Canal, a Wilkenfield memo confirms this practice of response. "The writer discussed this matter with A. W. Chambers (Hooker counsel) and E. Matthias and it was Chambers' feeling that we should not do anything unless requested by the school board." [15]

In 1968, the U.S. Department of Transportation started to construct an expressway at the southern end of the Love Canal site where it discovered rotted drums. According to F. Olotka, Supervisor of Industrial Wastes from 1967 to the present, DOT resident engineer called Hooker

[8] Hazardous Waste Disposal Hearings, pt. I, p. 651.
[9] Ibid.
[10] Ibid.
[11] Ibid.
[12] Ibid., p. 653. The addendum to the Wilkenfield memo of June 18, 1958 is as follows: Since writing this memo F. L. Bryant has discussed this matter with Mr. Salacruse, attorney for the school board.
[13] Molotsky, Irvin. A Love Canal Warning No One Can Recall. The New York Times, Apr. 14, 1979: 22.
[14] Hazardous Waste Disposal Hearings, pt. I, p. 653.
[15] Ibid.

and asked the company to "find a place to bury this material because they felt it was Hooker's former material." [16] To identify the substances contained in the drums, Hooker ordered that a chemical analysis be performed on material in and adjacent to the drums. The result of this analysis was the subject of a memo titled "Residue Sample From the Old Love Canal," dated March 21, 1968.[17] The memo listed evidence of benzoic acid, benzoyl chloride, o-chlorotoluene, p-chlorotoluene and toluene, chemicals similar to those buried by Hooker. "The sample was an 'oily'-like residue that burned much like a 4th of July sparkler." [18] According to this document, the Hooker Chemical Company was apparently again made aware of potential problems associated with the Love Canal site in 1968.

F. T. Olotka, industry waste supervisor for Hooker, claimed in his testimony that the company did not monitor activity of the Love Canal site.[19] However, the Subcommittee on Oversight and Investigations entered into the April 10, 1979 hearing record a Hooker Chemical interoffice memo on "Love Canal Monitoring Wells." Dated June 21, 1977, the document discusses the finding of effluent samples taken from six monitoring wells at the Love Canal site. Two of the six wells showed evidence of contamination. "The liquid sample was discolored by sediment contained in it. An organic type odor was detected." [20] Evidence of ground water contamination was also suggested. "He [Richard P. Leonard, environmental engineer for Calspan, a consulting firm] postulates that the silty sandy layer (at 6 feet in depth) is contaminated with organics and that the perched water is traveling laterally through the landfill." [21]

By this time, local authorities had received complaints from area residents about odors and chemicals in their water. The June 1977 memo refers to the assistance given by Hooker to the city of Niagara Falls to study the site and recommend remedial action.

On December 20, 1979, the Department of Justice filed a civil suit against Hooker Chemical Corporation for $124 million in damages for its errant waste disposal practices in U.S. Court, Western District of the State of New York.[22] Four counts were filed against Hooker regarding their waste disposal practices at Love Canal, Hyde Park, 102nd Street of Niagara Falls, and the "S" area on the company's plant site. In the complaints filed concerning Love Canal and Hyde Park, the United States is charging civil penalties. The two parties are currently negotiating out of court. Motions for extension of time to reply have been filed by Hooker due to the negotiations.

METROPOLITAN EDISON AND THREE MILE ISLAND

Background

The accident at the Three Mile Island plant began early on the morning of March 28, 1979, when a pressure release valve in the reac-

[16] Ibid., p. 656.
[17] Ibid., p. 655.
[18] Ibid., p. 655.
[19] Ibid., p. 656.
[20] Ibid., p. 658.
[21] Ibid., p. 659.
[22] *United States* v. *Hooker Chemical Corporation.* U.S. District Court, Western District of the State of New York, case 79–887, 888, 889, 890, filed Dec. 20, 1979.

tor's primary cooling system stuck open following an automatic reactor shutdown in response to a problem in the non-nuclear portion of the plant. Over the next several hours, largely as a result of inappropriate operator actions, the core of the reactor was not entirely covered by water as is necessary to prevent overheating. This resulted in severe overheating of a portion of the fuel and considerable damage to part of the reactor core.[1]

It was not until 4 p.m., 12 hours after the start of the accident, that the Nuclear Regulatory Commission's Incident Response Center became aware that part of the core of the reactor might be uncovered. This information may have been known in the reactor control room as early as 9 a.m. Several significant indications of the severity of the accident, which were available at the reactor site on the first day, were not transmitted to the Incident Response Center on that day.[2]

In response to these charges, the utility claims that in the confused situation of the first day of the accident the significance of certain events was not fully understood. In addition, lines of communication were hopelessly confused and there is some disagreement over the time when certain events were known by the management of the utility and when they were in fact communicated to the Nuclear Regulatory Commission (NRC).[3]

Although allegations have been made that at least some operators had additional information regarding the seriousness of the accident which was not passed on to the NRC [4 5], the two most serious charges concern the alleged failure to report excessively high temperature readings which were obtained from inside the core of the reactor and the occurrence of a sudden, short term pressure increase in the reactor containment building.

According to a staff report to the Subcommittee on Nuclear Regulation of the Senate Committee on Environment and Public Works [6]

> [The Incident Response Center] never received on the first day of the accident two significant indicators of the severity of the accident:
>
> The in-core temperature, which in some regions of the core measured above 2500 degrees by 9 a.m. and was known to some utility personnel at that time.
>
> The occurrence of a large increase ("spike") in the containment building pressure at 1:50 p.m.—an indication of major fuel damage and release of hydrogen that was immediately recorded on a strip chart in the control room of the plant.

Alleged coverup of temperature readings

With regard to the temperature in the core of the reactor, there is general agreement that shortly after 9 a.m. on March 28, after receiv-

[1] Report of the President's Commission on the Accident at Three Mile Island. The Need for Change: The Legacy of TMI. Washington, U.S. Government Printing Office, 1979, 201 pages.
[2] U.S. Congress. Senate. Committee on Environment and Public Works. Subcommittee on Nuclear Regulation. Three Mile Island Nuc'ear Powerplant Accident—Part 2. Hearings, 96th Congress, 1st session. Oct. 2 and 3, 1979. Washington, U.S. Government Printing Office, 1980, p. 155. (Hereafter cited as TMI Oct 2–3 hearings.)
[3] U.S. Nuclear Regulatory Commission. Special Inquiry Group. Three Mile Island: A Report to the Commissioners and to the Public. (Mitchell Rogovin, Director). Washington, U.S. Government Printing Office, 1980. 2 vols.
[4] Outstanding Charges Against Met Ed Hinge on Rogovin Findings. Nucleonics Week, Jan. 24, 1980, p. 2.
[5] U.S. Nuclear Regulatory Commission. Office of Inspection and Enforcement. Investigation into the Mar. 28, 1979 Three Mile Island Accident. Investigative Report No. 50–320/79–10. Washington, The Commission. August 1979. 1 vol in various pagings. NUREG–0600.
[6] TMI Oct. 2–3 hearings, p. 164.

ing a computer printout indicating core temperatures were above the 700 degree maximum of that instrumentation, control room personnel obtained readings directly from thermocouples inside the reactor with hand-held instruments. Four or five readings were obtained from different locations in the core. One or two thermocouples indicated temperatures over 2,000 degrees, but others indicated temperatures as low as 200. Testimony regarding the significance attributed to the high temperature readings varies. This conflicting testimony has been reported by Nucleonics Week,

> * * * such personnel as instrument men reading in-core thermocouples concluded early on that the reactor's core was uncovered and severe damage was in the offing. Supervisors on the other hand maintained that the readings were ambiguous. Their testimony to the NRC is itself ambiguous, however; and on one key point—transmittal of thermocouple readings to management—an engineer changed his testimony when confronted with contrary testimony from instrument men.[7]

Personnel who admitted that they recognized the significance of the temperature reading did not think that they a had to notify the NRC. This is shown in the summary of testimony received by the staff of the Subcommittee on Nuclear Regulation from Gary M. Miller, Metropolitan Edison's Manager of Generating Station Nuclear Units 1 and 2, who served as Emergency Director on March 28 as follows:

> Miller interpreted the readings to mean, in fact, that the core was quite hot and this meant his focus had to be turned immediately to coping with the situation through operator action. He conveyed to the investigation staff the impression that one the morning of March 28, he felt that relaying plant parameters to the NRC was secondary in importance, in his mind, to coping with ongoing reactor problems.[8]

These high temperature thermocouple readings were not reported to the NRC for at least two days. At 4 p.m. on March 28, Met Ed advised the Incident Response Center that thermocouple readings were above the highest reading of the normal instrumentation (700 degrees), but did not report the 2,000 degree readings. The information reported at 4 p.m. had been available as early as 7:30 in the morning. Victor Stello, at the time of the accident the director of the NRC Division of Operating Reactors, is quoted as having said, ". . . he remembered 'struggling' to get information about in-core thermocouple readings." [9]

Alleged coverup of "pressure spike"

In addition to the reporting of temperature readings, there have been allegations regarding the reporting of a sudden increase in the pressure (pressure spike) in the reactor containment building. Chart recorders show that the pressure spike occurred at 1:50 p.m. on March 28. It is now recognized that the spike was due to an explosion or rapid burning of hydrogen gas. This event is significant because the presence of the amount of hydrogen necessary for this to occur indicates that the reactor core had been uncovered for some time.

Conflicting statements have been made by TMI managers, who have said that the significance of the spike was not recognized at the time,

[7] Outstanding Charges Against Met Ed Hinge on Rogovin Findings. Nucleonics Week, Jan. 24, 1980, p. 2.
[8] TMI Oct. 2–3 hearings, p. 165.
[9] The Rogovin Report. Inside NRC Special Supplement, vol. 2, No. 2, Jan. 28, 1980, p. 3.

and by operating personnel, who have acknowledged that they thought otherwise. According to the report of the NRC Special Inquiry Group, headed by Mitchell Rogovin [10] (referred to as the Rogovin Report) two shift supervisors, Joe Chwastyk and Brian Mehler, recognized within an hour that a pressure spike had occurred and that it might have been caused by an explosion. The Rogovin Report states that Mehler thinks that people in the shift supervisors office were informed, however, Chwastyk is less clear and changed his testimony several times.

According to the staff report to the Subcommittee on Nuclear Regulation [11], Brian Mehler testified that an NRC inspector in the control room at the time was told about the spike shortly after it occured, but did not understand what it meant. Both NRC inspectors who have been identified as having been in the control room around that time deny having been made aware of the spike.

Mr. Darrell F. Eisenhut, Deputy Director of the NRC Division of Operating Reactors, told the Subcommittee staff that knowledge of the pressure spike would have led to the conclusion that the core was uncovered for some time. However, that information was not known at NRC headquarters until Friday, two days after it occurred.[12]

Status of investigations

It has not yet been conclusively determined if a cover-up of information did occur in this case. The Rogovin Report concluded that Metropolitan Edison management or other personnel did not willfully withhold information from NRC. However, George T. Frampton, Jr., Deputy Director of the NRC Special Inquiry Group has since stated that:

> * * * [on the] question of coverup there is conflicting evidence, there is conflicting testimony, there are things that don't make coherent sense to us. We made a judgement about the weight of the evidence. We found that while there was some evidence to suggest there was intentional withholding of information, the weight of the evidence doesn't support that, but others may come to a different conclusion based on the evidence that we developed.[13]

NRC Commissioners Victor Gilinsky and Peter A. Bradford and Representative Morris K. Udall have all publicly criticized the NRC Special Inquiry Group for not answering all the questions regarding a possible coverup. On February 17, 1980 it was announced that the Nuclear Regulatory Commission had ordered Mitchell Rogovin to take another look at whether information about the potential seriousness of the accident was withheld.

The Inspection and Enforcement Division (I & E) of the NRC has withheld action against Metropolitan Edison regarding the alleged coverup pending the conclusion of its investigation by Rogovin. If I & E determines that specific NRC regulations or reporting requirements were violated by Met Ed or GPU, they could impose a fine against those corporations or they could revoke the operating license for this plant from Met Ed. There are no current provisions for the

[10] U.S. Nuclear Regulatory Commission. Special Inquiry Group. Three Mile Island: A Report to the Commissioners and the Public. (Mitchell Rogovin, Director), Washington, U.S. Government Printing Office, 1980. 2 vols.
[11] TMI October 2–3 hearings, p. 166.
[12] Ibid., p. 157.
[13] Rogovin Report Mirrors Kemeny Work, Draws Mixed Commission Reaction. Nucleonics Week, Jan. 31, 1980, p. 2.

imposition of prison sentences upon Met Ed or GPU personnel, nor is it clear whether the NRC could impose fines in connection with a possible coverup unless specific reporting requirements were violated.

OCCUPATIONAL EXPOSURE TO ASBESTOS

Background

Asbestos is a grayish-white fibrous mineral whose quality of heat resistance and remarkable strength and flexibility resulted in more than 3,000 commercial applications. These many applications have insured that virtually everyone has been exposed to asbestos, from the chlid who sits in a classroom under a flaking asbestos-tiled or sprayed ceiling, to the handyman who saws and sands some types of wallboard. There has been concern about the health risks of such exposure. The latest concern involves the dangers posed by asbestos-lined hairdryers, which may expel fibers into the user's face. However, the risk to health from such consumer situations is not yet known.

On the other hand, exposure to asbestos in the workplace, where asbestos has caused disabling and often fatal disease, is well-documented in the literature. Asbestosis, a non-malignant scarring of the lungs, has been associated with 10 percent of the deaths among asbestos workers surveyed in epidemiological studies. The disease often makes breathing so difficult that victims are unable to climb stairs. Mesothelioma, a rare cancer of the linings of the chest or abdominal cavities, is associated exclusively with asbestos exposure and is usually fatal within a year after symptoms appear. Mesotheliomas have occurred in approximately 7 percent of worker exposures, and have even affected family members who reportedly contracted the disease by inhaling residue from a worker's clothing. The mineral also increases the risk of lung cancer, which accounts for the greatest number of asbsetos-associated deaths.

The discovery years: 1900–35

Comparatively few studies were undertaken in the United States until the 1930s, concerning asbestos-associated disease, despite the considerable use of this substance.

The first medical reference to the disease among workers appeared in 1918, in a monograph published by the U.S. Bureau of Labor Statistics.[1] This paper noted that insurance company records showed increased mortality among asbestos workers and commented that these companies were reluctant to insure them. In the same year, findings of fine fibrosis in the chest X-rays of fifteen asbestos workers were reported in the literature.[2]

During 1927–1929, a series of British reports concerning asbestosis attracted much attention in the United States and stimulated the initiation of important research studies.[3] [4]

[1] Hoffman, F. L. Mortality From Respiratory Diseases in Dusty Trades. Inorganic Dusts. Bulletin of the U.S. Bureau of Labor Statistics, No. 231. Washington, June 1918, p. 458.
[2] Pancoast, H. K., T. G. Miller, and H. R. M. Landis. A Roentgenologic Study of the Effects of Dust Inhalation Upon the Lungs. American Journal of Roentgenology, 1918: 129–138.
[3] Cooke, W. E. Pulmonary Asbestosis. British Medical Journal, Dec. 3, 1927: 1024–1025.
[4] Meriwether, E. R. A. and C. V. Price. Report on Effects of Asbestos Dust on the Lungs and Dust Suppression in the Asbestos Industry. Part I. Occurrence of Pulmonary Fibrosis and Other Pulmonary Affection in Asbestos Workers. Part II. Processes Giving Rise to Dust and Methods for its Suppression. H. M. S. O., 1930.

The U.S. asbestos industry commissioned a survey of asbestos health hazards in the United States and Canada which was conducted October 1929–January 1931. The results, reported in 1935, indicated a serious problem. Of 126 (randomly sampled) workers employed three years or more, 106 had abnormal findings.[5] Meanwhile, independent surveys had been taken which demonstrated a significant prevalence of asbestosis among asbestos factory workers.

An extensive investigation by the U.S. Public Health Service [6] confirmed these findings and it became widely known that asbestos exposure commonly resulted in a serious pneumoconiosis (a chronic reaction in the inhalation of dust). Although industrial hygiene data was minimal at that time, the U.S. Public Health Service proposed a "tentative standard" to be revised as more information became available.

It was also in 1935 that the first suggestion of an association between lung cancer and asbestos exposure could be found.[7]

By 1935, the main elements of the problem were known. Chyrsotile asbestos, virtually the only fiber then in use, could cause widespread disease. This disease could be fatal, and malignancy might also be a result of exposure. Nonetheless, during the next 25 years (1935–1960) the problem was not highlighted, regulations were few, and government inspections and supervision were infrequent.

The rediscovery years: 1960–present

Twenty years ago, asbestos-related disease again began to attract attention with the publication of three major studies.

In 1955, British epidemiologist Richard Doll investigated employees with at least twenty years' experience in an asbestos textile plant. He reported that this group experienced ten times the number of lung cancer deaths as non-asbestos workers of the same age.[8]

During the late 1950's, Dr. Irving Selikoff, now a leading U.S. occupational epidemiologist, noted that fifteen of his seventeen patients employed by a New Jersey asbestos firm had developed asbestos-related lung disease.[9]

In 1960, a report came from J. C. Wagner in South Africa of sixteen new cases of rare mesothelioma.[10] While six of these were in asbestos mine workers none of the other ten had ever worked in the mines. All had lived in the vicinity of the mines, though, many as children.

By the early 1960s, it was apparent that the incidence of asbestos-related disease was climbing at an alarming rate. It was during this time, that Irving Selikoff—acknowledging the work of foreign colleagues and in view of personal experience—followed a cohort of 632 asbestos insulation workers registered on New York and New Jersey union rolls in 1943.

[5] Lanza, A. J., W. J. McConnell, and J. W. Fehrnel. Effects of the Inhalation of Asbestos on the Lungs of Asbestos Workers. Public Health Reports, Jan. 4, 1935, 50(1) :1–12.
[6] Dressen, W. C., et al. A Study of Asbestosis in the Asbestos Textile Industry. Public Health Bulletin, Washington, D.C., August 1938. p. 241.
[7] Lynch, K. M. and W. A. Smith. Pulmonary Asbestosis in the Asbestos Textile Industry. Public Health Bulletin, August 1938, p. 241.
[8] Doll, Richard. Mortality From Lung Cancer in Asbestos Workers. British Journal of Industrial Medicine, 1955, 12:81–97.
[9] Selikoff, I. J. and E. C. Hammond. Multiple Risk Factors in Environmental Cancer. In J. F. Fraument, Jr., Ed., Persons at High Risk of Cancer. New York, Academic Press, 1975.
[10] U.S. Department of Health, Education, and Welfare. National Cancer Institute. Asbestos: An Information Resource. Washington: May 1978, p. 25.

In 1964, Dr. Selikoff published the results of the long-term study which established beyond any doubt, that exposure to asbestos fibers was hazardous.[11] The ultimate acceptance of the carcinogenicity of asbestos had not been easily achieved.[12]

During pre-trial discovery proceedings in recent product liability suits against the asbestos industry, documents dating from 1933–1945 [13] were obtained which included correspondence among senior executives, lawyers, physicians, consultants, and insurance representatives for Johns-Manville Corporation, Raybestos-Manhattan Incorporated and other asbestos companies.

South Carolina Circuit Court Judge James Price (who reviewed the material), is quoted as saying "it shows a pattern of denial and disease and attempts at suppression of information" so persuasive that he ordered a new trial for the family of a dead insulation worker whose earlier claim had been dismissed.[14] Judge Price noted that correspondence further reflects a conscious effort by the industry in the 1930s to downplay, or arguably suppress the dissemination of information to employees and the public for fear of promotion of lawsuits.[15] Judge Price also noted compensation disease claims filed by asbestos insulation workers against several companies—which quietly settled them—including eleven asbestosis cases settled out of court by Johns-Manville in 1933, "all pre-dating the time (1964) when these companies claim they first recognized the hazard to insulators." [16] Judge Price concluded that settlement of these claims "constitute compelling proof of actual notice to certain manufacturers that asbestos-containing thermal insulation products indeed caused disease in workers." [17]

The future

With an estimated 8 to 11 million workers having been exposed since World War II, the potential for asbestos-related occupational disease and cancer appears to be significant. Because of the latency period associated with this disease, it is reported that deaths from asbestosis and asbestos-related cancer in the year 2000, and later, will occur even if we ban the use of this substance today.[18]

Appendix

In 1971, the Occupational Safety and Health Administration (OSHA) imposed an emergency asbestos exposure standard of 5 million asbestos fibers per cubic meter of air. In 1972, OSHA began hearings to consider a proposal by the DHEW National Institute of Occupational Safety and Health (NIOSH) to lower the then temporary standard of 5 million asbestos fibers per cubic meter of air to 2 million fibers, the 1969 British standard.

[11] Selikoff, I. J., et al. Asbestos Exposure and Neoplasia. Journal of the American Medical Association. Apr. 6, 1964. 188 : 22–26.

[12] Dr. Selikoff continued to follow the union cohort, and by 1973, 444 of the original 632 workers were dead, a death rate 50 percent greater than that expected for the average white male. Among these excess deaths, lung cancer far exceeded the norm by a factor of seven. The rate of all cancers combined was four times as great for these men, and there were thirty-five cases of mesothelioma, which for non-asbestos workers should not have occurred at all. Finally, the rates of cancer of the stomach, colon, and rectum were more than three times that expected. See: Selikoff, I. J. and E. C. Hammond, Multiple Risk Factors in Environmental Cancer.

[13] These documents were publicly released in San Francisco at the October 1978 hearings of the Subcommittee on Compensation, Health, and Safety of the House Committee on Education and Labor [hearings not yet published].

[14] On file with the Clerk of Court for the 13th Judicial Court, Greenville, S.C. (No. 78–CP23–2343).

[15] Ibid.

[16] Ibid.

[17] Ibid.

[18] Selikoff, I. J. Asbestos Disease in the United States. Paper presented at the Conference on Asbestos Disease. Rouen, France, Oct. 27, 1975.

Industry fought strenuously against the proposal on the grounds that the dangers of asbestos were minimal. They argued that the five million fiber standard exposure would not cause disease and that to lower it further would create severe economic dislocation and unemployment.

In spite of projected job losses, organized labor strongly supported the tightened standard. It was accepted.

In December 1976, the Director of NIOSH communicated with the Assistant Secretary of Labor for OSHA, asserting that the 1969 British 2 million fibers standard, which had been the basis of the 1972 proposed NIOSH standard, had since been shown to be excessively high and should be reduced. Furthermore, this lower standard was primarily designed to protect against asbestos, without consideration of the cancer problem. The OSHA standard remains at 2 million fibers, twenty times in excess of the level that NIOSH now recommends. Industry continues to argue against further reductions of the OSHA standard, claiming that the dangers of exposure to asbestos are minimal.[19] [20]

POLYBROMINATED BIPHENYLS

Background

Polybrominated biphenyl is a general name referring to a class of industrial compounds; commercial products are mixtures of many forms of PBBs. PBBs are most commonly used in plastics and textiles as a flame retardant. The material has also been incorporated into auto upholstery, polyurethane foam, wire coatings and paints. The chemistry and stability of PBBs have not been well documented in the literature. Not enough is known to critically assess the extent of possible chemical conversion of PBBs in the environment. PBBs are thought to be less stable in the environment when compared to polychlorinated biphenyls (PCB's) because bromine atoms are more reactive. PBSs are solid and have extremely low vapor pressure. Production, distribution, and usage of PBBs have not been as widespread as that of PCB's. The PBBs used in products have very little tendency to migrate from the products. PBBs are persistent and can be passed on for generations. PBBs are stored in the body fat, where they can remain indefinitely: during pregnancy they can cross the placenta to the developing fetus. They also appear in human breast milk. Scientists at Harvard University and the National Cancer Institute have found that PBB's contain two suspected carcinogens, napthlene and furan.

Michigan Chemical Corporation manufactured the polybrominated biphenyls, FireMaster BP–6 and hexabrominated biphenyl, for use as flame retardants in thermoplastics. Hexabrominated biphenyl is a mixture of brominated biphenyls with an average of six bromine atoms per biphenyl molecule. FireMaster BP–6 is a mixture of five brominated biphenyls.

[19] Kotelchuck, D. Asbestos Research: Winning the Battle but Losing the War. Health/PAC Bulletin. November/December 1974. 61 : 1–32.

[20] Federal Register, Oct. 9, 1975. pp. 47652–65.

Representatives of the Michigan Chemical Corporation, now owned by Velsicol Chemical Corporation, have stated that, to their knowledge, FireMaster PB–6 is the only polybrominated biphenyl produced in commercial quantity in the United States.[1] Production estimates for FireMaster PB–6 were: 1970, 20,000 lbs.; 1971, 200,000 lbs.; 1972, 2,300,000 lbs.; 1973, 3,900,000 lbs.; and 1974, 4,800,000 lbs. The company stopped PBB production in 1975.

FireMaster PB–6 has been used as a flame retardant in the manufacture of typewriter, calculator, and microfilm reader housings, radio and TV parts, miscellaneous small automotive parts and small parts for electrical applications. The use of FireMaster PB–6 has been restricted to those applications where the end-use product is not exposed to either animal or human food and there is no known use of the product in flame retarding fabrics where human exposure would occur.

The ultimate disposition of FireMaster PB–6 upon burial is uncertain. The Michigan Chemical Corporation claims that the material will eventually undergo oxidative/biological degradation, forming carbon dioxide, water, and bromine ions.

Episode

In October 1973, adverse health effects were observed in cattle in several dairy herds in the State of Michigan. At the time, the cattle refused to eat manufactured feed; milk production decreased; there was a loss in body weight and the cattle developed abnormal hoof growth with lameness; cattle and swine aborted; and farmers reported the inability to breed heifers after they consumed feed manufactured by Farm Bureau Services. A herd of some 100 head of cattle sent to slaughter during this time period exhibited enlarged livers.

Until April 1974, no one could identify the substance causing these adverse effects. Analysis of samples of the suspected feed by laboratories of the United States Department of Agriculture at Beltsville, Maryland revealed that the feed was contaminated with a flame retardant chemical, hexabrominated biphenyl. Dr. George Fries of USDA identified the PBB in specimens from contaminated cows only because he had worked with PBB and knew the rather complex gas chromatography technique needed to analyze for it.

Subsequent investigation revealed that the Michigan Chemical Corporation manufactured magnesium oxide, a dairy feed supplement sold under the tradename, Nutrimaster, and they also manufactured a flame retardant, hexabrominated byphenyl, sold under the tradename, FireMaster BP–6, at their St. Louis, Michigan plant. Although there are many hypotheses as to how these two products were mixed up, the following story seems to be the most commonly cited.

Sometime during the summer of 1973, at the Michigan Chemical Corporation's St. Louis Michigan plant, ten to twenty 50-pound bags of "FireMaster", the fire-retardant PBB, somehow were included in a truck load of "Nutrimaster", or magnesium oxide, a compound used to sweeten acidic feed.[2] The truck was headed for the Farm Bureau

[1] Michigan Chemical Co. Review of Polybrominated Biphenyls. Presented to the Michigan Environmental Review Board, September 1974.
[2] Carter, Luther J. Michigan's PBB incident: Chemical Mix-up Leads to Disaster. Science, vol. 192, Apr. 16, 1976, p. 240.

Services, Inc. (a subsidiary of Michigan Farm Bureau) feed mill at Battle Creek.

From 1971 to 1973, the Michigan Chemical Corporation produced several experimental batches of PBB's which had been pulverized to a fine white powder.[3] The appearance of the PBB's was not precisely identical to that of the magnesium oxide, but to an unpracticed eye, the two were very similar. Normally, the FireMaster would have been packaged in bags lettered in red and the Nutrimaster in bags with blue trim. But, because of a shortage of bags with pre-printed labeling, the FireMaster, as well as the Nutrimaster, were packaged in plain brown bags on which the trade names were stenciled in black. When the top of a bag was torn off and discarded, identification was essentially lost. How the FireMaster and Nutrimaster bags became mixed at the plant is still a mystery.

Roger Clark, an attorney for Michigan Chemical has stated that the building in which FireMaster was manufactured and stored was several hundred yards from those where Nutrimaster was produced and stored.[4] Also, it was common practice to load these products directly from the storage buildings onto trucks for shipment, with no need to move them to some common loading area where a mixup could have occurred. But, during the investigation of the incident, a partially filled FireMaster bag was found at Farm Bureau Services.

As a result of the mixup, the Farm Services Bureau mixed 500 to 1,000 pounds of FireMaster BP–6 with animal feed, in place of the Nutrimaster, apparently in the same proportion of use for the Nutrimaster.[5] It appears that three kinds of feed were initially involved in this episode with PBB levels as follows: Feed No. 405, 2.4. ppm PBB; Feed No. 410, 1790 ppm PBB; and Feed No. 407, 4300 ppm PBB.

The feed was widely sold and distributed to Michigan farmers. Besides the heavy primary contamination caused by the initial mixing of PBB into feeds, there was secondary contamination resulting from traces of PBB remaining at the Battle Creek feed mill and at a number of other mills and grain elevators around the State. Originally, the contamination was thought to be limited to about 30 quarantined farms (where contamination exceeded 0.3 ppm in serum of animals) but further examination found PBB in swine, chickens, dairy products and eggs. The contaminant became widespread through a complex series of feed reprocessings, interfarm feed trades, and use of protein supplement derived from contaminated animals before the PBB contamination was discovered. One egg farm is known to have sold 63,000 hens to a processor for the nation's largest manufacturer of canned soups. The chickens were sold because their egg production had dropped sharply; they had apparently been poisoned with PBB. Some of the eggs contained up to 4,000 parts per million PBB.[6]

It has been estimated that between the onset of contamination in the fall of 1973 and the establishment of the quarantine of affected herds and flocks in the spring of 1974, over 10,000 Michigan residents were

[3] Hecht, Annabel. PPBs: One State's Tragedy. FDA Consumer, February 1977, p. 22.
[4] Carter, Luther J., Science, p. 240.
[5] Cordle, F. et al. Human Exposure to Polychlorinated Biphenyls and Polybrominated Biphenyls. Environmental Health Perspectives, vol. 24, June 1978, p. 170.
[6] Brody, Jane E. Farmers Exposed to a Pollutant Face Medical Study in Michigan. The New York Times, Aug. 12, 1976, p. C20.

exposed to PBB through consumption of milk, meat and dairy products. There was probably considerable variation in both duration of exposure and levels of exposure. As a group, the farm family members have been at greatest risk, followed by those individuals who purchased dairy products from contaminated farms on a regular basis.

Since the discovery in April 1974, 538 of the most heavily contaminated farms have been quarantined. More than 29,000 cattle, 5,900 hogs, 1,400 sheep and about 1.5 million chickens have been destroyed. In addition, at least 865 tons of feed, 17,990 pounds of cheese, 2,630 pounds of butter, 34,000 pounds of dry milk products, and nearly 5 million eggs have been destroyed.

The human health effects of PBB contamination are not clear. Although no specific effects have been ascribed to the contaminant, some families have reported psychological, neurological, skin, and joint symptoms; others have not reported these symptoms. Loss of sensation, persistent tiredness, loss of memory and deterioration of intelligence have also been reported. But no pattern of symptoms has been correlated, in a statistically significant way, with the concentration of PBB found in the human blood. Some with low blood levels have symptoms, others with high blood levels do not.

When the PBB contamination was first discovered in 1974, most Federal and State health officials contended that the substances would decompose. However, they have been found to persist in the environment, and now appear to be entering the food chain, soil, streams and swamps. According to Dr. Harold Humphrey, director of the Michigan Department of Public Health PBB study, investigations conducted since 1974 have found PBB in human breast milk in 96 percent of a statistical sample of breast feeding mothers in lower Michigan and in 40 percent of a similar group of mothers in the upper peninsula.[7] This indicates that persons living in Michigan during the 1973–1974 period, prior to the discovery and removal of contaminated food products from the market, had received some exposure to PBB through their normal food chain.

The concerns of Michigan residents continued into 1977. Results of tests for PBB in mother's milk as part of a larger study done by the Michigan Department of Health, found PBB in 22 of 26 samples tested.[8] These results were downplayed because the sample was reported to be too small, uncontrolled and not scientifically defensible. Another broader-based study completed in October 1976 revealed that 96 percent of mothers in lower Michigan had at least "trace" levels of PBB in their milk.[9] This finding did not persuade a panel of experts from the National Cancer Institute, the Food and Drug Administration, and the Center for Disease Control to change its original position in favor of continuing breast-feeding.

Chronic effects associated with exposure to PBB are unknown. Its potential for toxicity is five times greater than that of its relative, PCB. Animal experiments have shown that PBB is a potent microsomal enzyme inducer with teratogenic effects (i.e., capable of producing physical defects in offspring *in utero*) but, in general, its effects are largely unknown.

[7] Michigan Screens Blood for PBB Contamination. Journal of Environmental Health, vol. 39, No. 6, p. 436.
[8] William K. Stevens. Events in Michigan Revive Concern Over Effect of PBB in Mother's Milk. The New York Times, Jan. 2, 1977, p. 28.
[9] Ibid., p. 28.

Litigation

Due to their economic loss, hundreds of farmers filed suit against Michigan Chemical Corporation and Farm Bureau Services for damages incurred as a result of destruction of their contaminated animals. Over 355 of the cases have been settled out of court for a total of $50 million. In 1977, Roy and Marilyn Tacoma, a Michigan farmer and his wife, filed suit against Michigan Chemical and Farm Services for $250,000 actual damages and up to $1 million for punitive damages for the loss of more than 100 cattle.[10] The Tacomas claimed that their cattle had to be destroyed after they ate feed contaminated with PBBs. After almost two years in court, they lost their case for "compensatory and exemplary damages" for injuries their dairy herd had suffered. Michigan Circuit Court Judge William R. Peterson commented:

> The health of their (the Tacomas') animals was not impaired, nor was their performance in milk production affected by PBB. Most of the animals were never tested for PBB and the majority of those that were showed no sign of PBB. Plaintiffs have not shown any single incident of death that could be attributed to PBB.[11]

Judge Peterson also added that the preponderance of evidence indicated that low levels of PBBs were "relatively non-toxic" to cattle.

On November 28, 1977, the United States District Court for the Western District of Michigan filed criminal charges against Velsicol Chemical Corporation (formerly Michigan Chemical) and Farm Bureau Services for allegdly violating the provisions of the Federal Food, Drug, and Cosmetic Act by causing the adulteration of animal feeds with polybrominated biphenyls.[12] Velsicol was charged with commingling, (on or more than May 2, 1973) one or more bags of Nutrimaster (magnesium oxide) with FireMaster (PBB) in plain brown 50 pound bags with only the trade names listed.[13]

Neither the Nutrimaster nor the FireMaster bags listed the usual names of the product, the charges alleged, noting that the bags also failed to bear the name and place of business of the manufacturer, packer, or distributor. The counts, all listed as misdemeanors, indicated that magnesium oxide and PBB shipped by Michigan Chemical were fine powders similar in appearance.

Farm Bureau Services was alleged to have mixed the bags on four different dates with other animal feed ingredients, causing the food to be contaminated because: (1) it bore and contained an added poisonous and deleterious substance, PBB, which was unsafe; (2) it was unfit for food by reasons of the presence therein of PBB; and (3) it was prepared under unsanitary conditions whereby it may have been rendered injurious to health.[14] The charges carry a maximum penalty of $1,000 each.[15]

[10] *Tacoma v. Michigan Chemical Company and Michigan Farm Bureau Services,* Wexford County Circuit Court. State of Michigan, case 2933, filed 1977.
[11] Judge Throws Out PBB Damage Suit. Chemical and Engineering News, Nov. 6, 1978, p. 8.
[12] Criminal Charges Filed in PBB Tainting of Feed. The Washington Post, Nov. 29, 1977, p. C7.
[13] 1973 PBB Contamination of Feed Brings 4-Count Criminal Charges. Food and Chemical News, Dec. 5, 1977, p. 24.
[14] Ibid., p. 24.
[15] At the same time, James Brady, the U.S. Attorney for Western Michigan, set up a four-man task force composed of two members of the U.S. Attorney's office and two F.B.I. agents, to investigate allegations that contaminated cattle were sold illegally for food and that attempts had been made to cover up the incident. (U.S. Files PBB Charges. Chemical Week, Dec. 7, 1977, p. 14.)

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On December 19, 1977, Velsicol (Michigan Chemical) and Farm Bureau Services entered not guilty pleas before the U.S. Magistrate, Stephen W. Karr.[16]

On May 19, 1978, Velsicol and Farm Bureau Services, Inc. pleaded no contest to charges that they willfully contaminated cattle feed with PBBs and were fined $4000 each by Magistrate Karr.[17] The U.S. Attorney had sought a trial contending that the companies had knowingly endangered public health. But, Magistrate Karr ruled that the "two companies have shown good faith in their efforts to deal with the situation and had already paid $40 million in claims to farmers whose cattle were destroyed due to PBB contamination".[18]

The State of Michigan has also filed a suit against Michigan Chemical and Farm Services Bureau for damages resulting from the contamination of animal feed with PBB.[19] The State suit asks that the Farm Bureau and its subsidiaries and Michigan Chemical and its parent and related corporations be made to pay:

1. $59.2 million to cover expenditures Michigan will make by 1982 because of PBB contamination;
2. $60 million in additional damages for their "gross negligence";
3. all additional expenses incurred by the State for research and other purposes to protect the health of its citizens.[20]

The State's suit charges both with 10 counts each of civil liability ranging from gross negligence to violations of implied and expressed product warranties and creating a nuisance.

Most recently, Velsicol Chemical Corporation and two of its employees, Charles L. Touzeau and William Thorne, have been indicted in Michigan for concealing data and conspiring to defraud the Federal Government during FDA's investigation of the PBB contaminated animal feed. The two count Federal Grand Jury indictment charges Velsicol, Touzeau and Thorne with lying to FDA inspectors about the processes involved in the production and storage of PBBs. The second count charges that the company and its employees conspired to keep FDA from the performance of its investigative and enforcement duties.

According to a General Accounting Office report, FDA had found deficiencies in the production practices of Michigan Chemical Corporation as far back as 1969, but most of these had been corrected after being called to the attention of the company's management.[21] Similarly, manufacturing deficiencies detected by FDA at the Farm Bureau Services feed manufacturing facility at Battle Creek had been corrected after FDA inspection.

[16] Two PBB Makers Plead Not Guilty in Feed Case. The New York Times, Dec. 30, 1977, p. C20.
[17] U.S. District Court, Western District of Michigan. *United States* v. *Velsicol Chemical Corp. and Michigan Farm Bureau Services, Inc.* Case G 77–178. Disposition on May 19, 1978.
[18] Ibid., p. 144.
[19] *State of Michigan* v. *Michigan Chemical Company* and *State of Michigan* v. *Michigan Farm Bureau Services, Inc.* Circuit Court of the State of Michigan, 78–21345, February 1978.
[20] Michigan Files $100 Million Suit Over PBB Feed Mixture Incident. Chemical Regulation Reporter, May 3, 1978, p. 1856.
[21] U.S. Congress. General Accounting Office. PBB Contamination: FDA and USDA Monitoring Practices. June 1977, HRD 77–96.

The Federal indictment arose from information gathered in a grand jury investigation. It had been reported, in a suit brought by Roy and Marilyn Tacoma, that Michigan Chemical Corporation's St. Louis, Missouri plant operations manager, William Thorne admitted that he knew, in June 1973, that some bags of ground PBB were missing, but he failed to report it to anyone until after learning of the livestock feed problems nearly one year later.[22]

The grand jury indictment charged that beginning on or about April 19, 1974 and continuing thereafter through December 1976, the Velsicol Corporation, Omaha Properties, Inc., Charles L. Touzeau and William Thorne, plant manager and operational manager respectively, of Velsicol's St. Louis, Michigan plant "wilfully and knowingly falsified, concealed, and covered up by trick, scheme and device, material facts relating to the potential and actual contamination and adulteration of food and drug products".[23] On April 26, 1974, the defendants told Charles S. Carns, an inspector for the Food and Drug Administration, that they had no knowledge of a possible contamination of cattle feed by PBB.[24] The indictment charged that prior to April 26, 1974, the defendants had knowledge of the possibility of magnesium oxide being contaminated with PBB. The indictment states that "in truth and fact, . . . PBB (hexabrominated biphenyl) had been granulated and ground; that at times prior to April 26, 1974, PBB did resemble in physical properties and packaging Michigan Chemical Corporation's bagged maknesium oxide; and that hexabrominated biphenyl had been manufactured and processed in a system which was not entirely closed and which could cross-contaminate magnesium oxide".[25] The indictment also charged that the PBB (also referred to as FF–1 and BP–6) was stored with other company products which could have resulted in contamination and adulteration of food and drug products.[26]

The grand jury also indicted the defendants on charges of conspiracy to defraud the Food and Drug Administration in violation of Section 371, Title 18, U.S. Code by representing that they had no knowledge of possible contamination of animal feed by PBB.[27] As of April 1980, the Court was hearing pre-trial motions.

[22] Toxic Materials News, Apr. 6, 1977, p. 69.
[23] *United States* v. *Velsicol Chemical Corporation, Omaha Properties, Inc., Charles L. Touzeau, and William Thorne.* U.S. District Court, Eastern District of Michigan, case 79–80270. Grand jury indictment, Apr. 26, 1979.
[24] Ibid., p. 2.
[25] Ibid., pp. 5–6.
[26] Ibid., p. 6.
[27] Ibid., pp. 6–7.

Part Two: Legal Background Relating to H.R. 7040

Summary of H.R. 7040—A Bill Requiring Disclosure of Certain Information by Business Entities

(By Raymond Natter, Legislative Attorney, American Law Division)

I. Introduction

H.R. 7040 is a bill which would amend Title 18 of the United States Code by adding a new section to that title—Section 1822. This new section would make it a Federal criminal offense to fail to report to an appropriate Federal agency, or to warn affected employees, that a particular business product or business practice has a serious concealed danger associated with it. In addition, the bill would make it a criminal offense to discriminate against any employee in the terms or conditions of their employment, because of such person's having informed a Federal agency or warned employees of such a danger.

II. Section 1822(a)

Subsection (a) of the proposed new section defines the scope of the prohibited conduct under the bill. This section states that it is a criminal offense for a manager with respect to a business product or practice who has discovered a serious concealed danger that is subject to the regulatory authority of an appropriate Federal agency, and which is associated with that business product or practice, to knowingly fail to inform an appropriate Federal agency and to warn affected employees of such danger. This requirement must be satisfied within 15 days after the discovery of such danger, or if there is an immediate risk of serious bodily injury or death, the requirement must be satisfied immediately. Thus, under this bill the requirement to report to an appropriate Federal agency or to warn employees is limited to the "manager" with respect to the product or practice in question, and the concealed danger must be associated with the business product or practice over which he or she has management authority. In addition, the failure to report must be "knowingly" in order for criminal liability to accrue. The term "manager" is defined in Section 1822(d).

Subsection (a) also provides the maximum penalties for violation of this reporting and warning requirement, which are a fine of up to $250,000 and imprisonment for up to 5 years, or both, for an individual, and a fine of up to $1,000,000 for a corporation.

III. Section 1822(b)

Subsection (b) of the proposed section provides protection against discriminatory treatment of employees who report dangers to a Federal agency or who warn other employees of such dangers. Under this subsection it is a criminal offense to knowingly discriminate

against such employees in the terms or conditions of employment or in retention in employment or in hiring. Violation of this provision may be punished by a fine of up to $10,000, or imprisonment for up to 1 year, or both.

IV. Section 1822(c)

Subsection (c) of the proposed section provides that if a fine is imposed on an individual for violation of any provision under Section 1822, such fine shall not be paid, directly or indirectly, out of the assets of any business entity on behalf of that individual.

V. Section 1822(d)

This subsection provides a list of definitions for the terms used in the proposed section. The term "manager" is defined as a person having "management authority in or as a business entity; and significant responsibility for the safety of a product or business practice or for the conduct or research or testing in connection with a product or business practice." It therefore appears that only those managers who have responsibility for the safety of a business product or practice or for the conduct or research or testing of such product or practice have a duty to report to Federal agencies and warn employees under this bill.

The term "product" is defined in this subsection to include services.

The term "discovers" is defined to mean obtaining information that would convince a reasonable person in the circumstances in which the discoverer is situated that a serious concealed danger exists.

The term "serious concealed danger" is defined to mean that the normal or reasonably forseeable use of, or exposure of human beings to, such product or business practice is likely to cause death or serious bodily injury to a human being, including a human fetus and the danger is not readily apparent to the average person. Thus, this bill would not require the reporting of obvious dangers or hazards.

The term "serious bodily injury" is defined as an impairment of a physical condition or physical pain that creates a substantial risk of death or causes serious permanent disfigurement, unconsciousness, extreme pain, or permanent or protracted loss or impairment of the function of any bodily member, organ, or mental faculty.

There term "warn affected employees" is defined to mean "give sufficient description of the serious concealed danger to all individuals working for or in the business entity who are likely to be subject to the serious concealed danger in the course of that work to make those individuals aware of that danger."

The term "appropriate Federal agency" is defined to mean one of eight specified Federal agencies which has regulatory authority with respect to the product or business practice in question and serious concealed dangers of the sort discovered. The eight Federal agencies are: (1) The Food and Drug Administration; (2) The Environmental Protection Agency; (3) The National Highway Traffic Safety Administration; (4) The Occupational Safety and Health Administration; (5) The Nuclear Regulatory Commission; (6) The Consumer Product Safety Commission; (7) The Federal Aviation Administration; and (8) The Federal Mine Safety and Health Review Commission.

FIFTH AMENDMENT CONSIDERATIONS WITH REGARD TO H.R. 7040—A BILL REQUIRING DISCLOSURE OF CERTAIN INFORMATION BY BUSINESS ENTITIES

I. Introduction

This report discusses the constitutional restraints imposed by the Fifth Amendment's bar against compelled self-incrimination upon the permissible scope of H.R. 7040, a bill requiring disclosure of certain information by corporate personnel.

As introduced, H.R. 7040 would make it a Federal crime to knowingly fail to report to an appropriate governmental agency, and warn affected employees, that a serious concealed danger is associated with a business practice or product. The duty to make this report, or give the required warning, would rest with the "manager" associated with the business practice or product in question. A "manager" is defined as a person having "management authority in or as a business entity . . . [and] significant responsibility for the safety of a product or business practice or for the conduct of research or testing in connection with a product or business practice".

The bill provides a maximum penalty for violation of its reporting or warning requirements of a fine of not more than $25,000 or imprisonment for not more than 5 years, or both, in the case of an individual, and for a fine of not more than $1,000,000 in the case of a corporation. In short, this bill would make it a Federal crime for a corporation, or a specific manager in a corporation, to fail to notify the appropriate Federal agency and affected employees, that a business product or practice poses a serious danger to health or safety.

The potential Fifth Amendment problem arises due to the fact that many Federal statutes provide criminal penalties for unsafe or unhealthy business practices or products. While many of these statutes do not require the reporting of a safety hazard, they do, in many cases, prohibit the violation of a safety or health standard promulgated by a regulatory agency, or contained in the statute itself. In addition, under many of these statutes certain corporate officers or agents, as well as the corporation itself, may be held criminally liable for violations of these safety provisions. For example, the Federal Food Drug, and Cosmetic Act, 21 U.S.C. § 301 *et seq.*, prohibits the introduction into interstate commerce of any food, drug, medical device, or cosmetic that is adulterated or misbranded. Criminal penalties are provided for violation of the Act, with increased penalties applicable where the violation is coupled with an intent to defraud or mislead. This Act has been interpreted by the Supreme Court in the case of *United States* v. *Park*, 421 U.S. 658 (1975) as permitting the criminal prosecution of responsible corporate officials who have the power to prevent or correct corporate violations of the Act, even if these officials were not aware of the violation nor had any intent to violate the Act.

In addition to specific provisions, Section 2 of Title 18, United States Code, contains a general provision which may be used to prosecute certain corporate officers as well as the corporation for the violation of a criminal health or safety statute. This section states:

(a) Whoever commits an offense against the United States or aids, abets, counsels, commands, induces, or procures its commission, is punishable as a principal.

(b) Whoever willfully causes an act to be done which if directly performed by him or another would be an offense against the United States, is punishable as a principal.

Under this provision, it is possible that a corporate officer or agent who directed the corporation to disregard safety standards may be held criminally liable, even if the statute under which the safety standards were promulgated does not contain a provision regarding corporate officer or agent liability.

Thus it is possible under H.R. 7040 for a corporate officer or agent to be required to report to Federal authorities information which may implicate that same individual in conduct which is violative of a criminal provision. In order to determine whether or not this would constitute a violation of the Fifth Amendment's prohibition against compelled self-incrimination, an initial inquiry must be made as to the extent of the applicability of this privilege to corporate officers and agents.

II. Applicability of the Fifth Amendment Privilege to Corporate Officers and Agents

In the case of *Hale* v. *Henkel*, 201 U.S. 43 (1906), the Supreme Court established the principle that since the privilege against self-incrimination is a personal privilege, accruing to the individual called upon to give information, it cannot be raised on behalf of a corporation, which is a fictional entity acting through agents. In *United States* v. *White*, 322 U.S. 694 (1944), the Court extended this conclusion to labor unions, setting out the appropriate test for determining the applicability of the privilege as follows:[1]

> The test is . . . whether one can fairly say under all the circumstances that a particular type of organization has a character so impersonal in the scope of its membership and activities that it cannot be said to embody or represent the purely private or personal interests of its constituents, but rather to embody their common or group interests only. If so, the privilege cannot be invoked on behalf of the organization or its representatives in their official capacity.

Thus it appears that corporations and similar business associations are not protected by the Fifth Amendment privilege with regard to information which might lead to the conviction of the corporation. In the case of *Wilson* v. *United States*, 221 U.S. 361 (1911), the Supreme Court also indicated that the privilege could not be raised by a corporate officer with regard to corporate records which were required to be maintained by State law, even though these records were personally incriminating to the agent. The Court held that these records were analogous to public documents, and that the corporate agent, by accepting custody of these documents, also accepted the obligation to permit their inspection upon demand.

Despite this line of cases, the Supreme Court, in the case of *Curcio* v. *United States*, 354 U.S. 118 (1957), held that the privilege *is* applicable to corporate officers who are asked to testify about corporate activities, or their own activities as corporate officers, which might be self-incriminating. As stated by the Court:[2]

[1] 322 U.S. at 699.
[2] 354 U.S. at 122.

It is well settled that a corporation is not protected by the constitutional privilege against self-incrimination. A corporate officer may not withhold testimony or documents on the ground that his corporation would be incriminated. . . . Nor may the custodian of corporate books or records withhold them on the ground that he personally might be incriminated by their production. . . .

* * * * * * *

The Government now contends that the representative duty which required the production of union records in the *White* case requires the giving of oral testimony in this case. From the fact that the custodian has no privilege with respect to the union books in his possession, the Government reasons that he also has no privilege with respect to questions seeking to ascertain the whereabouts of books and records. . . .

The Fifth Amendment suggests no such exception. . . . A custodian, by assuming the duties of his office, undertakes the obligation to produce the books of which he is custodian in response to a rightful exercise of the State's visitorial powers. But he cannot lawfully be compelled, in the absence of a grant of adequate immunity from prosecution, to condemn himself by his own oral testimony.

The Court went on to add that a corporate officer may be compelled to answer only limited questions intended to be used to identify or authenticate corporate documents required to be produced, since such testimony is merely "auxiliary to the production" of the documents.[2a]

In summary, it appears that although the Fifth Amendment privilege against compelled self-incrimination does not apply to corporations, or to corporate records or documents, it does protect corporate officers who are asked to testify as to corporate activities or their own activities which may tend ot be personally incriminating. Since the bill in question might require corporate officers to make such an incriminating statement in certain situations, it would appear that the Fifth Amendment privilege may be a bar to the prosecution of certain individuals under the provisions of this bill. However, in order to judge the effectiveness of such a defense, it is necessary to review how the Fifth Amendment has been applied to other regulatory provisions requiring the reporting of potentially incriminating information.

III. Application of the Privilege to Regulatory Reporting and Disclosure Requirements

The Fifth Amendment privilege against compelled self-incrimination obviously applies to procedural matters, such as when a defendant may refuse to testify, or a witness may refuse to answer a question. It has also been held to apply to regulatory provisions which require an individual to report information to public authorities. However, in this situation the Supreme Court has indicated that the extent to which it applies depends on various circumstances. For example, in the case of *Sullivan* v. *United States*, 274 U.S. 259 (1927), the Court held that the privilege could not be used as a defense for a failure to file an income tax return, even though the information requested, if answered, might have been incriminating. However, in this case, the Court did indicate, in *dictum*, that the privilege could have been claimed at the time the filing was due. As explained by the Court: [3]

As the defendant's income was taxed, the statute, of course, required a return. . . . If the form of return provided called for answers that the defendant was privileged from making he could have raised the objection in the return, but could not on that account refuse to make any return at all.

[2a] See also, *United States* v. *Kordel*, 397 U.S. 1 (1976).
[3] 274 U.S. at 263.

The holding in the *Sullivan* case was elaborated upon in the case of *Albertson* v. *Subversive Activities Control Board*, 382 U.S. 70 (1965). In this case the Court upheld a refusal to comply with the Subversive Activities Control Act of 1950, which required that, under certain circumstances, each member of a "Communist-front" organization must register with the Attorney General. The Court noted that substantial risks of incrimination exist under other Federal statutes for anyone registering under the Act, and then proceeded to distinguish this situation from the one presented in *Sullivan*: [4]

In *Sullivan* the questions in the income tax form were *neutral on their face and directed at the public at large*, but here they are directed at a highly *selective group inherently suspect of criminal activities*. Petitioners' claims are not asserted in an *essentially noncriminal regulatory area* of inquiry, but against an inquiry in an area permeated with criminal statutes, where response to any of the form's questions in context might involve the petitioners in the admission of a crucial element of a crime. (Emphasis added.)

The Court was presented with an analogous situation in the case of *Marchetti* v. *United States*, 390 U.S. 39 (1968). In this case the Court upheld a defense, based upon the Fifth Amendment privilege, for failure to comply with the Federal statutory provisions for taxing wagers. These provisions called for a 10 percent excise tax on the gross amount of all wagers accepted, and a $50 occupational tax upon those who accept wagers directly or those who receive wagers on behalf of another. These taxation provisions were supplemented by a registration requirement for those subject to the tax and the obligation to display a revenue stamp in the principal place of business.

The Court noted that wagering and its ancillary activities are widely prohibited under both Federal and State law, and that those engaged in wagering are a group inherently suspect of criminal activities. Further, the Court found that information obtained as a consequence of the Federal wagering tax laws is readily available to assist the efforts of State and Federal authorities in enforcing anti-gambling laws. Based on these findings the Court concluded: [5]

(I)t can scarcely be denied that the obligation to register and to pay the occupational tax created for the petitioner "real and appreciable," and not "imaginary and unsubstantial," hazards of self-incrimination. . . . Petitioner was confronted by a comprehensive system of federal and state prohibitions against wagering activities; he was required, on pain of criminal prosecution, to provide information which he might reasonably suppose would be available to prosecuting authorities, and which would surely prove a significant "link in a chain" of evidence tending to establish his guilt. Unlike the income tax return in question in *United States* v. *Sullivan*, 274 U.S. at 259, every portion of these requirements had the direct and unmistakable consequence of incriminating petitioner; the application of the constitutional privilege to the entire registration procedure was in this instance neither "extreme" nor "extravagant."

Based on these cases it appears that the Fifth Amendment may be raised as a defense for failure to comply with reporting provisions in which the area of inquiry is "permeated" with criminal statutes or where the questions are directed at a selected group of individuals "inherently suspect" of criminal activity and where the information called for presents a "real and appreciable" risk of self-incrimination. However, reporting requirements which are directed at the public at

[4] 382 U.S. at 79.
[5] 390 U.S. at 48.

large, and which call for information more neutral in character, may fall into a different classification for Fifth Amendment purposes. This would appear to be especially true where the reporting requirement is designed to further a legitimate government purpose other than enforcement of criminal provisions. This conclusion appears to be supported by several Supreme Court cases in addition to the *Sullivan* case discussed above.

In *Grosso* v. *United States*, 390 U.S. 62 (1968), a companion case to *Marchetti* v. *United States*, the Court applied the principles enunciated in *Marchetti* to overturn a conviction based on a failure to pay the excise wagering tax. In this case Justice Brennan wrote a concurring opinion, which he also made applicable to the *Marchetti* case, in which he explained: [6]

> The privilege against self-incrimination does not bar the Government from establishing every program or scheme featured by provisions designed to secure information from citizens to accomplish proper legislative purposes. *Congress is assuredly empowered to construct a statutory scheme which either is general enough to avoid conflict with the privilege, or which assures the confidentiality or immunity to overcome the privilege* * * * (Emphasis added.)

Thus Justice Brennan clearly implies that a statutory reporting requirement may overcome potential Fifth Amendment restraints if the statute grants immunity to those who follow its procedures, or provides confidentiality to those who report under the statute, or if it is a general provision which is not directed towards an inherently suspect group or calls for information in an area permeated with criminal provisions. The exception for general statutory provisions was elaborated upon further by the Supreme Court in the case of *California* v. *Byers*, 402 U.S. 424 (1971).

In *California* v. *Byers* the Supreme Court upheld Section 20002(a)(1) of the California Vehicle Code which requires that the driver of any motor vehicle involved in an accident resulting in damage to property stop and notify the other parties of his name and address. When an individual was prosecuted for failure to follow this provision, he argued that compliance with the statute would have violated his Fifth Amendment rights against compelled self-incrimination. Although the California Supreme Court agreed with this argument, the United States Supreme Court reversed, but without agreeing on a single majority opinion.

Chief Justice Burger, writing for himself and Justices Stewart, White and Blackmun, implied that a balancing approach should be used in determining the scope of the Fifth Amendment protection against compelled self-incrimination: [7]

> Whenever the Court is confronted with the question [of] compelled disclosure that has an incriminating potential the judicial scrutiny is invariably a close one. Tension between the State's demand for disclosures and the protection of the right against self-incrimination is likely to give rise to serious questions. Inevitably these must be resolved in terms of *balancing the public need on one hand, and the individual claim to constitutional protections on the other;* neither interests can be treated lightly.
>
> An organized society imposes many burdens on its constituents. It commands the filing of tax returns for income; *it requires producers and distributors of consumer goods to file informational reports on the manufacturing process and*

[6] 390 U.S. at 72.
[7] 402 U.S. at 427.

> *the content of products*, on the wages, hours, and *working conditions of employees*. Those who borrow money on the public market or issue securities for sale to the public must file various reports; *industries must report periodically the volume and content of pollutants discharged into our waters and atmosphere.* Comparable examples are legion.
>
> *In each of these situations there is some possibility of prosecution—often a very real one—for criminal offenses disclosed by or deriving them from the information that the law compels a person to supply.* Information revealed by these reports could well be "a link in the chain" of evidence leading to prosecution and conviction. But under our holdings the mere possibility of incrimination is insufficient to defeat the strong policies in favor of a disclosure called for by statutes like the one challenged here. (Emphasis added.)

Chief Justice Burger then reviewed the leading cases on statutory reporting provisions, and concluded: [8]

> In all of these cases the disclosures condemned were only those extracted from a "highly selective group inherently suspect of criminal activities" and the privilege as applied only in "an area permeated with criminal statutes"—not in "an essentially noncriminal and regulatory area of inquiry." E.g. *Albertson* v. *SACB*, 382 U.S., at 79; *Marchetti* v. *United States*, 390 U.S. at 47. . . .
>
> Although the California Vehicle Code defines some criminal offenses, the statute is essentially regulatory, not criminal. The California Supreme Court noted that § 20002(a)(1) was not intended to facilitate criminal convictions but to promote the satisfaction of civil liabilities. . . .
>
> . . . § 20002(a)(1), like income tax laws, is directed at all persons—here all persons who drive automobiles in California. This group, numbering as it does in the millions, is so large as to render § 20002(a)(1) a statute "directed at the public at large." . . . It is difficult to consider this group as either "highly selective" or "inherently suspect of criminal activities." . . .
>
> The disclosure of inherently illegal activity is inherently risky. Our decisions in *Albertson* and the cases following illustrate that truism. But disclosures with respect to automobile accidents simply do not entail the kind of substantial risk of self-incrimination involved in *Marchetti* . . . . Furthermore, the statutory purpose is noncriminal and self-reporting is indispensable to its fulfillment.

The Chief Justice went on to conclude that in any case the information required by the California statute was "non-testimonial" in nature, and therefore the Fifth Amendment would not apply for that reason also. As explained by the Chief Justice: [9]

> * * * Compliance with § 20002(a)(1) requires two things: first, a driver involved in an accident is required to stop at the scene; second, he is required to give his name and address. The act of stopping is no more testimonial—indeed less so in some respects—than requiring a person in custody to stand or walk in a police lineup, to speak prescribed words, or to give samples of handwriting, fingerprints, or blood. . . . Disclosure of name and address is an essentially neutral act. Whatever the collateral consequences of disclosing name and address, the statutory purpose is to implement the state police power to regulate motor vehicles.
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> * * * * * * * * * *
>
> * * * A name, linked with a motor vehicle, is no more incriminating than the tax return, linked with the disclosure of income, in *United States* v. *Sullivan*, *supra*. It identifies but does not by itself implicate anyone in criminal conduct.

The Chief Justice then added in a footnote: [10]

> We are not called upon to decide, but if the dictum of the *Sullivan* opinion were followed, the driver having stopped and identified himself, pursuant to statute, *could decline to make any further statement* * * * (Emphasis added.)

Thus, the Chief Justice's plurality opinion appears to rest on two alternative theories. The first theory espouses a "balancing test" ap-

[8] Id., at 430.
[9] Id., at 431.
[10] Id. at 434 note 6.

proach to the Fifth Amendment in which society's need for information is balanced against the probabilities of using the information for prosecutory purposes. In applying this test, the Chief Justice indicated that one must look to the nature of the information requested, the uses to which it will be put, and the characteristics of the individuals from whom the information is requested. Where the area of inquiry is essentially non-criminal and regulatory in nature, and where the individuals requested to supply the information are not inherently suspect of criminal activity, and where the information is not intended to be used primarily for criminal prosecutions but instead for other legitimate governmental purposes, the Chief Justice indicated that the balancing test will result in upholding the validity of the reporting requirement, even if in a particular instance it results in incriminating evidence being compelled from an individual. However, where the area of inquiry is "permeated" with criminal statutes, where the individuals at whom the statute is directed are a "highly selective group inherently suspect of criminal activity," and where the requested information is primarily intended to facilitate criminal prosecutions, the balancing test will support the individual's Fifth Amendment claim.

The second theory upon which the Chief Justice rests his opinion is that the information requested under the provision in question is "non-testimonial" in nature, and is therefore not protected by the Fifth Amendment. Under this theory, the California statute is upheld only to the extent that it requires no more than for the motorist to stop and give his name and address, and the Chief Justice strongly implies that a driver complying with this provision could validly refuse to supply any other information.

Justice Harlan, in his concurring opinion, completely rejected the theory that the disclosures required by the California provision were "non-testimonial" in nature. Instead, he argued that where disclosure of information is required under a governmental regulatory program that is essentially non-criminal in nature, but which includes certain criminal sanctions, a new balancing test must be applied in order to determine the scope of the Fifth Amendment privilege. This balancing test compares the non-criminal governmental need for the information with the impact on the individual's right of privacy and the "accusatorial" system which such disclosure will produce. As explained by Justice Brennan:[11]

> This Court's cases attempting to capture the "purposes" or "policies" of the privilege demonstrate the uncertainty of that mandate. . . . One commentator takes from these cases two basic themes: (1) the privilege is designed to secure . . . an "accusatorial" as opposed to an "inquisitorial" criminal process; (2) the privilege is part of the "concern for individual privacy that has always been a fundamental tenet of the American value structure." . . .
>
> These values are implicated by governmental compulsion to disclose information about driving behavior as part of a regulatory scheme including criminal sanctions. The privacy interest is directly implicated, while the interest in preserving a commitment to the "accusatorial" system is implicated in the more attenuated sense that an officialdom which has available to it the benefits of a self-reporting scheme may be encouraged to rely upon that scheme for all governmental purposes. But . . . special governmental interests in addition to the deterrence of antisocial behavior by use of criminal sanctions are affected by extension of the privilege to this regulatory context. If the privilege is extended to the circumstances of this case, it must, I think, be potentially available in every

[11] 402 U.S. at 450.

> instance where the government relies on self-reporting. And . . . then the privilege threatens the capacity of the government to respond to societal needs with a realistic mixture of criminal sanctions and other regulatory devices.
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> * * * * * * *
>
> (W)e must deal in degrees in this troublesome area. The question whether some sort of immunity is required as a condition of compelled self-reporting inescapably requires an evaluation of *the assertedly noncriminal governmental purpose* in securing the information, *the necessity for self-reporting as a means of securing the information, and the nature of the disclosures required* . . .
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> * * * * * * *
>
> In a very real sense, compliance with the statutory requirements involved in *Marchetti* and *Grosso*, followed by use of the information in a prosecution, reduced the "accusatorial system" to the role of a merely ritualistic confirmation of the "conviction" secured through the exercise of the taxing power . . .
>
> In contrast, the "hit and run" statute in the present case predicates the duty to report on the occurrence of an event which cannot, without simply distorting the normal connotations of language, be characterized as "inherently suspect," i.e., involvement in an automobile accident with property damage. And, having initially specified the regulated event . . . in the broadest terms possible consistent with the regulatory scheme's concededly noncriminal purpose, the State has confined the portion of the scheme now before us . . .*to the minimal level of disclosure of information consistent* with the use of compelled self-reporting in the regulation of driving behavior. Since the State could . . . achieve the same degree of focus on criminal conduct through detailed reporting requirements as was achieved in *Marchetti* and *Grosso* . . . the *Court must take cognizance of the level of detail* required in the reporting program as well as the circumstances giving rise to the duty to report; otherwise the State . . . will . . . reduce the "accusatorial system" which the Fifth Amendment is intended to secure to a hollow ritual.
>
> California's decision to compel Byers to stop after his accident and identify himself will not relieve the State of the duty to determine, entirely by virtue of its own investigation after the coerced stop, whether or not any aspect of Byer's behavior was criminal.
>
> In short . . . the State must still bear the burden of making the main evidentiary case against Byers as a violator of . . . the California Vehicle Code . . .
>
> Considering the noncriminal governmental purpose in securing the information, the necessity for self-reporting as a means of securing the information, and the nature of the disclosures involved, I cannot say that the purposes of the Fifth Amendment warrant imposition of a use restriction as a condition of enforcement of this statute. . . . (Emphasis added.)

Thus, although differing in their reasoning, both Justice Harlan and Chief Justice Burger would apply a balancing test in determining the applicability of the Fifth Amendment privilege in a regulatory reporting situation. Under Chief Justice Burger's balancing test, the objective probability of using the information required by the reporting provision is balanced against the societal needs for the information. The objectives probability is determined by examining the primary purpose for the provision, (criminal or non-criminal), the population at which the provision is directed, (inherently suspect or not suspect), and the primary use of the information, (prosecutorial or regulatory).

Under Justice Harlan's balancing test, the impact of the reporting requirement on individual privacy and the "accusatorial system" is weighed against society's need for the information. In determining the impact on the "accusatorial system," Justice Harlan would look to the governmental purposes for securing the data, (primarily criminal or primarily regulatory), the necessity for self-reporting as opposed to other methods of achieving the regulatory goal, and the extent of the information requested, including the level of detail. In making these determinations, Justice Harlan implies that he would

consider the nature of the event triggering the reporting requirement, and that an event usually associated with criminal activities would make the reporting requirement suspect.

Chief Justice Burger, in his alternative approach to the case, would also emphasize the minimal extent of the disclosures required under the California statute as indicative that it is non-testimonial in character.

The most recent case decided by the Supreme Court involving Fifth Amendment considerations in a regulatory reporting scheme is *Garner* v. *United States*, 424 U.S. 648 (1976). In this case an individual's tax returns were introduced as evidence against him in a criminal proceeding for an offense unrelated to the tax laws, despite the fact that the defendant objected on Fifth Amendment grounds. The Supreme Court upheld the conviction on the ground that the defendant has a right to claim the privilege at the time of filing the return, but could not claim the privilege after having voluntarily waived his right not to make the disclosures. In support of this conclusion the Supreme Court cited *United States* v. *Sullivan*, 274 U.S. 259 (1927). The Court then added at note 16:[12]

> Garner contends that *California* v. *Byers*, cast doubt on *Sullivan*'s dictum. The Court held in *Byers* that the privilege against compulsory self-incrimination was not violated by a statute requiring motorists involved in automobile accidents to stop and identify themselves. Garner argues that *Byers* suggests that governments always can compel answers to neutral regulatory inquiries in a self-reporting scheme and that the protection of the Fifth Amendment should be afforded in such cases solely through use immunity.
>
> We cannot agree that *Byers* undercut *Sullivan*'s dictum. Although there was not a majority of the Court for any rationale for the *Byers* holding, *the Court addressed there only the basic requirement that one's name and address be disclosed.* The opinions upholding the requirement suggested that the *privilege might be claimed appropriately against other question. . . . Byers* is thus analogous to *Sullivan*, holding only that requiring certain basic disclosures fundamental to a neutral reporting scheme does not violate the privilege. (Emphasis added, citations omitted.)

Based on this quote, which was agreed with by six members of the Supreme Court, it appears that the *Byers* may be limited to cases in which the disclosures required are extremely minimal, such as one's name and address.

Finally, it should be noted that the Supreme Court recently agreed to review[13] the decision of the Court of Appeals for the Tenth Circuit in the case of *Ward* v. *Coleman*, 598 F. 2d 1187 (10th Cir. 1979). In this case the Court of Appeals considered the constitutionality of the Federal Water Pollution Control Act which requires that any person in charge of a vessel, or onshore or offshore "facility," must notify the appropriate Federal agency as soon as he or she has knowledge of any discharge of oil or a hazardous substance, and that failure to comply with this reporting requirement is a criminal offense. The Court of Appeals noted that the Act subjects owners and operators of discharging facilities to civil penalties, including an automatic "civil penalty" in an amount of not more than $5,000 per offense, which is levied without regard to fault, and "subject to no defenses." The Court of Appeals then held that based on the language of the statute,

[12] 424 U.S. at 662 note 16.
[13] 48 U.S.L.W. 3308 (1979), sub. nom. *Ward* v. *United States*.

the administrative enforcement scheme, and other indicators of Congressional intent, the "civil" penalty must be considered "criminal" in nature, and that therefore the Fifth Amendment privilege applies, and would be violated if the disclosures compelled under the Act were used in assessing the penalty in question. However, the Court of Appeals did not strike down the self-reporting statute, but instead granted "use" immunity for the information provided under the reporting provision, holding that any evidence used to establish a discharge must be derived from a source wholly independent of any disclosures required under the Act.

Thus, if the Supreme Court accepts the Court of Appeals determination that the penalties in question are actually "criminal" in nature, the Court will have another opportunity to elaborate upon the scope of the Fifth Amendment privilege when dealing with regulatory disclosure requirements.

In summary, the Supreme Court has articulated several principles with regard to the constitutionality of disclosure requirements in regulatory provisions. In *Sullivan* the Court held that reporting requirements which are generally applicable to the public at large are constitutional, and added in *dictum* that an individual may object on Fifth Amendment grounds to answering a particular question or group of questions. In *Albertson* v. *Subversive Activities Control Board*, and *Marchetti* v. *United States* the Court indicated that the Fifth Amendment may be raised as a defense for failure to comply with disclosure provisions which are directed at a selected group of individuals who are inherently suspect of criminal activity, and where the area of inquiry is "permeated" with criminal provisions. However, in *Grosso* v. *United States*, Justice Brennan in a concurring opinion implied that Congress could enact a statutory scheme which was general enough to avoid conflict with the privilege, and in *California* v. *Byers*, a divided Court upheld a disclosure requirement for automobile drivers involved in accidents. In this case Justice Burger, writing for himself and three other Justices, implied that a balancing approach to the Fifth Amendment should be used in which society's interest in securing necessary information is balanced against the objective probabilities that the information will be used for prosecutorial purposes. This opinion also argued that the minimal nature of the disclosures required, i.e. the name and address of the driver, were non-testimonial, and that therefore the Fifth Amendment did not apply for that reason. Justice Harlan, in a concurring opinion also applied a balancing test, weighing the impact of the reporting requirement on individual privacy and the "acusatorial system" against society's need for the information. However, the case of *Garner* v. *United States* apparently limited the *Byers* case to the facts presented in that case, in which only a minimal disclosure of information was requested. Finally, the Supreme Court has decided to review a Court of Appeals decision applying the Fifth Amendment to a reporting requirement under the Federal Water Pollution Control Act, so as to limit the uses of the information required to be reported under that Act. The Supreme Court's decision in this case will hopefully elucidate the standards under which the Fifth Amendment is to be applied to general regulatory disclosure provisions.

IV. Conclusion

The Supreme Court's interpretation of the effect of the Fifth Amendment privilege on the government's ability to require certain disclosures of information for non-criminal, regulatory purposes, is not entirely clear. Under the line of cases beginning with *Sullivan* v. *United States*, and including *Albertson* v. *Subversive Activities Control Board* and *Marchetti* v. *United States*, it would appear that the Fifth Amendment will not excuse a complete failure to comply with disclosure requirements which are directed at the public at large in an area which is essentially non-criminal. However, under this line of cases, an individual may still object on Fifth Amendment grounds to answering a particular question at the time when the reporting is initially required. In addition, where the area of inquiry is "permeated" with criminal provisions, or where the individuals at whom the disclosure requirements are directed are "inherently suspect" of criminal activities, a complete refusal to comply with the reporting provisions may be justified. The bill under discussion in this report, H.R. 7040, does not appear to be directed at an inherently suspect group, since it would apply to all corporations and corporate officers whose businesses or business practices are regulated by the Federal government. However, in the area of product and workplace safety, there appear to be many criminal provisions, and if the holding in *Ward* v. *Coleman* is upheld, many civil penalty provisions may also be considered "criminal" in nature. Whether or not this area would be considered "permeated" with criminal sanctions would therefore appear to be a close question. In any case, even if this area is not considered to be "permeated" with criminal penalties, under the *Sullivan* rationale an individual could still refuse to make the required report on the ground that the disclosure would be incriminating to him. This conclusion appears to be supported by the recent case of *Garner* v. *United States*.

On the other hand, under the plurality opinion in the case of *California* v. *Byers*, a generalized reporting requirement may not be evaded on Fifth Amendment grounds where society's need for the information outweighs the objective probabilities that the information will be used for prosecutorial purposes. In making this determination, consideration is to be given the primary propose for the requirement, the population at which it is directed, and the primary use of the information. The reporting requirement in H.R. 7040 would appear to be acceptable under these criteria since one could argue that the primary purpose of the legislation is to warn affected individuals of hazards to their safety, that the population at which the bill is directed is large and not inherently suspect of criminal activities, and that the primary use of the information will not be for prosecutorial purposes but for warning individuals of serious dangers to their health. In addition, it should be noted that the plurality opinion implied approval of this type of regulation when it cited, with apparent approval, reporting requirements already in existence in the areas of consumer products safety and environmental pollution.

However, the plurality opinion in the *Byers* case also contained language indicating an alternative ground for its conclusions, namely that the minimal nature of the disclosures required under the statute

in question were non-testimonial in nature. Further, the plurality opinion was supplemented by Justice Harlan's concurring opinion, in which he would apply a balancing test in which consideration must also be given to the extent of the information required. H.R. 7040 unlike the statute under consideration in *Byers*, does not call for minimal disclosures, such as an individual's name and address, but instead demands information concerning a product or workplace hazard. Obviously, if this information is to be useful in protecting lives, it no doubt must contain detailed information as to the nature of the hazard. This may be sufficient information to bring a criminal prosecution against corporate individuals under at least some of the criminal laws, and therefore probably would not be considered a "minimal" disclosure.

Support for considering the extent of the disclosure required in determining the scope of the Fifth Amendment's application in regulatory reporting provisions may also be found in the case of *Garner* v. *United States*, where the majority opinion appears to have limited *Byers* to the facts in that case, and where the Court expressly states that in *Byers* the Court only considered the "basic requirement that one's name and address be disclosed."

Thus the state of the law is not yet completely settled in the area of self-incrimination through regulatory reporting provisions, and it is not possible to reach a firm conclusion as to how a court might rule on the reporting requirement in H.R. 7040. However, the Supreme Court has agreed to review a recent case involving reporting requirements under the Federal Water Pollution Control Act, and the Court's decision in this case may soon provide the information necessary to resolve this problem.

SURVEY OF SELECTED FEDERAL STATUTES WHICH PROVIDE FOR CORPORATE CRIMINAL LIABILITY

I. Introduction

This survey present a thumbnail sketch of selected Federal statutes under which criminal prosecution of corporations is authorized. The statutes selected are limited to those relating to corporate conduct in which a danger to life or health is possible: (a) statutes relating to products liability; (b) statutes relating to environmental protection; and (c) statutes relating to occupational safety. Statutes which provide for an affirmative duty on the part of the corporation or other individual to report the existence of a hazardous condition have been identified, and the specific section mandating this action is cited. However, this report is limited to an examination of statutory law, and therefore we do not include reporting requirements which may be imposed by administrative regulation. In addition, it should be noted that this survey is not a comprehensive compilation of all possible statutes under which corporations may be criminally prosecuted, but only describes the major Federal statutes in each area of concern. Further, these summaries do not include analyses of the case law associated with these provisions.

II. Product Safety

1. *Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 et. seq.).*—This Act prohibits the introduction into interstate commerce

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of any food, drug, medical device, or cosmetic that is adulterated or misbranded. The term "adulterated" is defined to include the inclusion of poisonous, unsanitary, or deleterious ingredients in a product, and would therefore appear to include products which are harmful to health. Since the Act specifically defines the term "person" to include corporations, these criminal provisions are applicable to both individuals and corporate entities.

For a first conviction the Act provides for a fine of not more than $1,000 or for imprisonment for not more than 1 year, or both. For a subsequent conviction or for a conviction in which an intent to defraud or mislead is established, the Act provides for a fine of not more than $10,000 or for imprisonment for up to 3 years, or both. (21 U.S.C. § 333).

2. *Filled Milk Act* (*21 U.S.C. §§ 61 et. seq.*).—This Act declares that filled milk is an adulterated article of food, injurious to the public health, and that it shall be unlawful for any person to manufacture such milk within any Territory or the District of Columbia, or to ship or deliver for shipment filled milk in interstate or foreign commerce. The act, omission, or failure of any person acting for or employed by a corporation and within the scope of employment shall be deemed the act, omission, or failure of such individual as well as of such corporation.

The criminal penalties provided for in the Act include a fine no greater than $1,000 or imprisonment up to 1 year, or both. (21 U.S.C. § 63).

3. *Wholesome Poultry Products Act* (*21 U.S.C. §§ 451 et. seq.*).—This Act prohibits the introduction into interstate commerce of any poultry products which are capable of use as human food and are adulterated or misbranded. The Act also prohibits anyone from falsely representing that a poultry product has been Federally inspected or exempted from inspection, or make any other false statement in any official or nonofficial certificate required by regulations promulgated under the statute. The Act defines the term "person" to include corporations, and specifically provides that the act or omission of an employee acting for a corporation and within the scope of employment, shall be deemed to be the act or omission of the employee as well as of the corporation.

The Act provides criminal penalties of a fine not greater than $1,000 or imprisonment for no longer than 1 year, or both. The fine is increased to $10,000 and the term of imprisonment increased to a maximum of 3 years where the violation was committed with the intent to defraud, or involved the distribution of adulterated articles. (21 U.S.C. § 461).

4. *Egg Product Inspection Act* (*21 U.S.C. §§ 1031 et. seq.*).—This Act provides for the inspection of certain egg products, uniformity in the standards for eggs, and regulates the processing and distribution of eggs and egg products in order to prevent the movement or sale as human food, of eggs and egg products which are adulterated or misbranded or otherwise in violation of certain health and safety standards. The Act specifically provides that the act, omission, or failure of any person acting for or employed by a corporation within the scope

of employment or office shall be deemed the act, omission, or failure to act of the corporation as well as of the individual.

The Act provides criminal penalties of a fine of not more than $1,000 or imprisonment for no longer than 1 year, or both, unless the violation was committed with the intent to defraud, or involved the distribution of adulterated articles, in which case the maximum fine is increased to $10,000 and the maximum term of imprisonment is increased to 3 years. (21 U.S.C. § 1041).

5. *Federal Hazardous Substances Act* (*15 U.S.C. §§ 1261 et seq.*).—This Act requires precautionary labeling on the packages or containers of hazardous household substances, toxic substances, corrosive substances, irritants, strong sensitizers and inflammable substances. In addition, certain toys, intended to be used by children, which present a danger of an electrical, mechanical or thermal hazard, are included within the scope of the Act. Certain household products or toys may be banned under the Act. The Act prohibits the introduction into interstate commerce of any misbranded hazardous substance or banned hazardous substance, or the alteration or removal of a required label.

A simple violation of the Act is made a misdemeanor, with a fine of not more than $500 and a term of imprisonment for not more than 90 days, or both, the applicable penalty. However, if the violation is committed with the intent to defraud or mislead, or if there was a prior conviction for a violation of this Act, the penalties are increased to a fine of not more than $3,000 or a term of imprisonment of no longer than 1 year, or both. (15 U.S.C. § 1264).

6. *Federal Cigarette Labeling and Advertising Act* (*15 U.S.C. §§ 1331 et seq.*).—This Act requires certain warning statements on cigarette packages and prohibits cigarettes and certain other types of tobacco products from being advertised on any medium of electronic communication subject to the jurisdiction of the FCC.

Violation of this Act is made a misdemeanor with a possible fine of up to $10,000. There is no provision for imprisonment. (15 U.S.C. § 1338).

7. *National Traffic and Motor Vehicle Safety Act* (*15 U.S.C. §§ 1381 et seq.*).—This Act authorizes, among other things, the establishment of Federal motor vehicle safety standards. The Act specifies civil fines for the manufacture or sale of motor vehicles which fail to meet these safety standards, and provides that United States District Courts may provide injunctive relief to restrain further violation. These injunctions may be enforced through criminal sanctions. Part B of the Act provides that manufacturers must notify the Secretary of Transportation and owners of motor vehicles of any defects in such vehicles relating to safety. (15 U.S.C. §§ 1411, 1412). Civil penalties are available for failure to comply with this requirement.

8. *Poison Prevention Packaging Act* (*15 U.S.C. §§ 1471 et seq.*).—This Act authorizes the Consumer Product Safety Commission to establish standards for the packaging of household substances which pose a threat to the health or safety of children. Violation of these standards in the case of foods, drugs, medical devices, and cosmetics is criminally punishable under the terms of the Food, Drug, and Cosmetic Act, 21 U.S.C. §§ 301 *et seq.* and for other household goods,

violation of these standards is criminally punishable under the terms of the Federal Hazardous Substances Act, 15 U.S.C. §§ 1261 *et seq.*

9. *Flammable Fabrics Act (15 U.S.C. §§ 1191 et seq.)*.—This Act prohibits the manufacture or sale in interstate commerce, or the transport in interstate commerce, of any product, fabric, or related material which fails to conform to applicable flammability standards and regulations promulgated by the Consumer Product Safety Commission.

Violation of this Act is deemed a misdemeanor, with a possible fine of up to $5,000 or imprisonment for up to 1 year, or both, the maximum applicable penalties. (15 U.S.C. § 1196).

10. *Consumer Product Safety Act (15 U.S.C. §§ 2051 et seq.*—This Act establishes the Consumer Product Safety Commission and provides that this body shall promulgate consumer product safety standards. Consumer products are defined to include, with certain exceptions, any article, or component thereof, produced or distributed for sale to a consumer for use, consumption or enjoyment in or around a permanent or temporary household or residence, or school, or in recreation.

The safety standards are to consist of requirements as to performance, composition, contents, design, construction, finish, or packaging of such consumer products, and may include a requirement that a consumer product be marked with or accompanied by a clear and adequate warning or instructions. (15 U.S.C. § 2056).

In addition, the Commission may ban certain consumer products when it finds that such product represents an unreasonable risk of injury and no feasible safey standard would adequately protect the public.

The Act makes it unlawful to manufacture, sell, or distribute in interstate commerce, or import into the United States, any consumer product which is not in conformity with an applicable product safety standard or which has been declared a banned product. The Act provides that any individual director, officer, or agent of a corporation who knowingly and willfully authorizes, orders, or performs any act which constitutes a violation of one of these provisions, and who has knowledge of a notice of non-compliance received by the corporation, shall be subject to criminal penalties without regard to any civil or criminal penalties to which the corporation may be subject.

The Act provides a criminal penalty for a knowing and willful violation of its provisions after notice of non-compliance. This penalty may consist of a fine up to $50,000 or imprisonment for up to 1 year, or both. (15 U.S.C. § 2070).

11. *Federal Aviation Act (49 U.S.C. §§ 1301 et seq)*.—This Act authorizes the Administrator of the FAA to prescribe minimum standards governing the design, materials, workmanship, construction, and performance of aircraft, associated appliances, as may be required in the interests of safety. In addition, the Administrator is authorized to prescribe regulations relating to aircraft maintenance and operation, and such other practices, methods, and procedures as he may find necessary to provide for safety in air commerce.

Any person who willfully and knowingly violates any order, rule or regulation issued by the Administrator for which no penalty is otherwise provided, shall be deemed guilty of a misdemeanor. (49 U.S.C. § 1472). The term "peron" is defined to include corporations.

12. *Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 et seq.)*.—This Act provides that the Secretary of Transportation may issue regulations for the safe transportation of hazardous materials. Any person who willfully violates a provision of this Act, or a regulation promulgated by the Secretary, may be criminally prosecuted, and penalties of up to 5 years imprisonment or a fine of up to $25,000, or both, may be imposed for a willful violation. (49 U.S.C. § 1809).

III. *Environmental Laws*

1. *Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. §§ 136 et seq.)*.—These provisions make it unlawful to distribute, sell or ship in interstate commerce any pesticide which is not registered under the Act, and registered pesticide which differs in composition from its composition as described at the time of registration, or any pesticide which is adulterated or misbranded. In addition, these provisions make it unlawful to make available for use or to use any registered pesticide for any purposes other than in a manner prescribed by regulations or product labeling. Both civil and criminal penalties are available for violation of these provisions. With regard to the criminal penalties, the statute specifically states that the act, omission, or failure to act of any officer, agent, or person acting for or employed by any person shall be also deemed to the act, omission or failure to act of such person as well as of the employer. The term "person" is defined to include corporations.

The penalty for violation of the Act is deemed a misdemeanor, and includes a fine of up to $25,000 or a term of imprisonment not to exceed 1 year, or both (7 U.S.C. § 1361).

2. *Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. §§ 401 et seq.)*.—This Act makes it unlawful to discharge any refuse matter of any kind into any navigable water of the United States, or into any tributary of any navigable water, without a permit to do so. The Act specifically states that every person and every corporation that violates the provisions of the Act shall be guilty of a misdemeanor, and is subject to a fine of not more than $2,500 nor less than $500 or a term of imprisonment of not more than 1 year, or both (33 U.S.C. § 406).

3. *Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et seq.)*.—This Act establishes a comprehensive framework for the Nation's water pollution control policies, goals, and programs. Section 1311 provides that the discharge of any pollutant by any person shall be unlawful, unless such discharge is made in compliance with the Act, including the permit requirements. The Act provides for both civil and criminal enforcement, and criminal penalties are available for false statements, failure to notify the government of a harmful spill of oil or other hazardous substance (33 U.S.C. § 1321), and for any willful or negligent violation of the section of the Act dealing with effluent limitations, toxicity standards, pre-treatment effluent standards, inspections, monitoring and entry, or any permit requirement, condition or limitation. The criminal provisions specifically define the term "person" to include corporations, and provide penalties of a fine of not more than $25,000 nor less than $2,500 per day of violation or

imprisonment for not more than 1 year, or both. Violation after a prior conviction increases the possible penalties to a fine of not more than $50,000 per day or imprisonment for not more than 2 years, or both (33 U.S.C. § 1319).

4. *Marine Protection, Research, and Sanctuaries Act (33 U.S.C. §§ 1401 et seq.)*.—This Act provides that no person may transport from the United States, or in the case of vessels or aircraft registered in the United States, no person shall transport from any location, any material for the purpose of dumping it into ocean waters without a permit issued by the EPA. In addition, the Act prohibits the dumping of any materials into the territorial sea of the United States or a contiguous zone, without a permit. The Act specifically defines the term "person" to include "any private person or entity" and would therefore appear to encompass corporations. The Act provides for a criminal penalty of a fine not to exceed $50,000 or imprisonment for up to 1 year, or both (33 U.S.C. § 1415).

5. *Toxic Substances Control Act (15 U.S.C. §§ 2601 et seq.)*.—This Act authorizes the Administrator of the EPA to promulgate rules and regulations with regard to toxic chemical substances and mixtures in order to safeguard the safety of individuals and the environment. The Act directs the Administrator to prohibit the manufacture, processing or distribution in interstate commerce of certain toxic substances which he determines to present an unreasonable risk to health or the environment, and to promulgate other rules limiting the amount of other toxic substances which may be manufactured or the uses to which these substances may be put. Manufacturers, processors, and distributors of chemical substances or mixtures have an affirmative duty to notify the Administrator whenever they obtain information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment, unless they have actual knowledge that the Administrator has already been informed of such information. (15 U.S.C. § 2607(e)).

Any person who knowingly or willfully violates provisions of this Act may be subject to criminal penalties. These penalties include imprisonment for up to 1 year or a fine of up to $25,000, or both. (15 U.S.C. § 2615).

6. *Clean Air Act (42 U.S.C. §§ 7401 et seq.)*.—This Act authorizes the Administrator of the EPA to promulgate standards with regard to air pollutants. No persons may construct any new source or modify any existing source which in the Administrator's judgment will emit an air pollutant in violation of these standards. Criminal penalties are available for anyone knowingly violating these standards, refusing to comply with certain orders of the Administrator, or making a false statement, report, representation or certification in any document filed or required under the Act, and for other acts specified in 42 U.S.C. § 7413. Under this section the first conviction may be punished by a fine up to $25,000 per day of violation or a term of imprisonment up to 1 year, or both. Subsequent convictions may result in a fine up to $50,000 per day of violation or a term of imprisonment up to 2 years, or both.

7. *Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.)*.—This Act provides, among other things, that the Administrator of the EPA is to promulgate regulations identifying the characteristics of hazardous waste, and listing particular hazardous wastes. The Act provides that any person who knowingly transports any listed hazardous waste to a facility which does not have a permit, or disposes of any listed hazardous waste without first obtaining a permit, or makes any false statement or representation, shall be subject to criminal penalties, of a fine up to $25,000 per day of violation or imprisonment for up to 1 year, or both. Penalties for a second or subsequent conviction are increased to a fine of $50,000 per day of violation or imprisonment for up to 2 years, or both. (42 U.S.C. § 6928).

8. *Noise Control Act (42 U.S.C. §§ 4901 et seq.)*.—This Act authorizes the Administrator of the EPA to promulgate regulations for products for which noise control standards are feasible, and which fall within one or more of the following categories: construction equipment, transportation equipment, motor or engine, or electrical or electronic equipment. Any person who willfully or knowingly violates these provisions or regulations, or who knowingly makes any false statement in connection with any application or report required by the Act, may be criminally prosecuted, and possible penalties include a fine up to $25,000 per day of violation or imprisonment up to 1 year, or both, for a first conviction. Penalties are increased for a subsequent conviction to a fine up to $50,000 per day of violation or imprisonment up to 2 years, or both.

9. *Atomic Energy Act (42 U.S.C. §§ 2011 et seq.)*.—This Act provides for the comprehensive regulation and control of the possession, use, and production of atomic energy and certain nuclear materials, whether owned by the government or others. This regulation is accomplished, in part, by extensive licensing requirements for users of nuclear materials and atomic energy, including nuclear power facilities. Willful violation or attempts to violate any provision of the Act, including the licensing provisions, is made a criminal offense. The term "person" is defined to include corporations. Specific penalties are set out at 42 U.S.C. § 2272.

10. *Outer Continental Shelf Lands Act (43 U.S.C. §§ 1801 et seq.)*.—This Act establishes policies and procedures for managing the oil and natural gas resources of the Continental Shelf. The Act requires the person in charge of a vessel or offshore facility which is involved in an incident which causes pollution or the immediate threat of pollution to immediately notify the Secretary of Transportation. (42 U.S.C. § 1816). Such notification may not be the grounds for criminal liability except for perjury or the giving of false information. However, failure to notify the Secretary by the person in charge of the facility is made a criminal offense. In this case the liability appears to be limited to the individual. Penalties include a fine up to $10,000 or imprisonment up to 1 year, or both. (43 U.S.C. § 1822).

11. *Surface Mining Control and Reclamation Act (30 U.S.C. §§ 1801 et seq.)*.—This Act is designed to protect society and the environment from the adverse effects of surface coal mining operations. In order to accomplish this goal, the Secretary of the Interior is authorized to promulgate regulations concerning surface coal mining and reclamation standards. Any person who willfully and knowingly violates a condition of a permit or who fails or refuses to comply with orders issued by the Secretary under this Act, may be criminally prosecuted. The Act specifically provides that whenever a corporate permittee vio-

lates a condition or a permit or fails to comply with an order, any director, officer, or agent of such corporation who willfully and knowingly authorized, ordered, or carried out such violation, shall be subject to the same civil and criminal penalties as the corporation itself.

The criminal penalties for a willful violation include a fine up to $10,000 or imprisonment up to 1 year, or both. (30 U.S.C. § 1268).

12. *Oil Pollution Act (33 U.S.C. §§ 1001 et seq.)*. This Act prohibits the discharge of oil or an oily mixture from a ship and specifies certain construction requirements for tanker ships. Any person who willfully discharges oil or an oily mixture in violation of this Act may be fined up to $10,000 or imprisoned for up to 1 year, or both. (33 U.S.C. § 1005).

IV. Occupational Safety

1. *Occupational Safety and Health Act (29 U.S.C. §§ 651 et seq.)*.—This Act provides that each employer who has a business affecting interstate or foreign commerce has a duty to furnish to each employee a place of employment which is free from recognized hazards that are likely to cause death or serious physical harm. In addition, the employer has a duty to comply with occupational safety and health standards promulgated under this Act. The Act states that any employer who willfully violates any standard, rule, order, or regulation, and where that violation has caused the death of any employee, shall be subject to criminal penalties. Further, any employer who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act, shall be subject to criminal penalties. Civil penalties are available for violations of standards which do not result in the death of an employee.

The criminal penalties include fines up to $10,000 or imprisonment up to 6 months for a first conviction, and fines up to $20,000 and imprisonment up to 1 year for subsequent convictions. (29 U.S.C. § 660).

2. *Federal Mine Safety and Health Act (30 U.S.C. §§ 801 et seq.)*.—This Act provides that the Secretary of Labor shall promulgate mandatory health or safety standards for the protection of life and prevention of injuries in coal and other mines. Any mine operator who willfully violates a mandatory health or safety standard or knowingly violates or refuses to comply with any order issued under this Act may be fined up to $25,000 or imprisoned up to 1 year, or both for a first conviction. Fines are increased to $50,000 and imprisonment increased to a maximum of 5 years for subsequent convictions (30 U.S.C. § 820).

3. *Longshoremen's and Harbor Workers' Compensation Act (33 U.S.C. §§ 901 et seq.)*.—This Act provides, among other things, that every employer shall furnish and maintain employment and places of employment which shall be reasonably safe for all employees, and shall use such devices and safeguards as the Secretary of Labor may by regulation determine necessary. Any employer who willfully violates or fails or refuses to comply with these provisions, may be subject to criminal penalties. The Act states that where the employer is a corporation, the officer who willfully permits any such violation to occur shall be guilty of an offense also.

The criminal penalty provided for in the Act is a fine of not less than $100 nor more than $300. (33 U.S.C. §941(k)).

APPENDIX: MATERIAL ON COMPARABLE STATUTES IN SELECTED FOREIGN COUNTRIES

(Compiled by the Office of the Law Librarian of Congress

THE LIBRARY OF CONGRESS,
Washington, D.C., February 13, 1980.

Hon. PETER W. RODINO, Jr.
Chairman, Committee on the Judiciary, House of Representatives, Washington, D.C.

(Attention: Steven G. Raikin, Counsel, Subcommittee on Crime).

DEAR MR. RODINO: In response to your request of January 14, 1980, we are sending a summary and analysis of legal provisions for the affirmative duty to disclose criminal negligence violations of health and environmental hazards in foreign countries comparable to the provisions of HR 4973 and § 1617 and § 1853 of S. 1722.

If the Law Library can be of further assistance, please call on us.

Sincerely,

CARLETON W. KENYON,
Law Librarian.

Enclosures.

CONTENTS

AUSTRALIA

I. H.R. 4973, § 1822. Affirmative Duty to Disclose

In the apportionment of powers under the federal system in Australia, criminal law and the law on health and safety of workers largely lie within the jurisdiction of the Australian states. None of the states appears to have enactments which directly impose a duty on employers to disclose to a government agency or to warn employees of the presence of a serious danger with respect to a product or business practice.

There are some provisions, however, which may be relevant for present purposes. The Factories, Shops and Industries Act, 1962, No. 43 of 1962 (New South Wales), which requires the registration of factories, empowers the government upon a report by an Inspector of defects in the factory, to seek rectification of the defects or to close down the factory (§ 12). Noncompliance with the terms specified in the notice is deemed to make the factory unregistered. Provision is made to protect workers from injurious or offensive fumes, gases, dust, or other impurities, and a Chief Inspector may by notice require the occupier of a factory to take specified steps to prevent the emission of fumes, etc. (§ 41). The occupier of a factory is also required to give written notice of an accident involving machinery or any other process in the factory which causes loss of life or the disability of an employee (§ 48).

Under the Labour and Industry Act, 1958, No. 6283 (Victoria), as amended, upon being satisfied that any plant or process used in a factory is dangerous or injurious to health, a Minister may issue a notice requiring the occupier of a factory to cease to use such plant or dangerous processes (§ 177). The occupier of a factory is also required to report within 24 hours all accidents causing loss of life or bodily injury (§ 181).

II. S. 1722, § 1617. Reckless Endangerment

A liability arises out of criminal negligence where a person omits to take steps he is obliged to take under common law or statute. Reckless endangerment of life or limb is, however, not provided for in the statutes controlling environmental pollution or the other areas covered in § 1617. There are provisions against the causing of bodily injury by explosive substances (The Crimes Act, 1900–1977, § 47 (New South Wales)), and the endangerment of life or limb by a mine owner or employer (Coal Mines Regulations Act, 1912–1964, § 69 (New South Wales)) (copy attached). These offenses, however, involve elements of malice or wilfullness.

III. S. 1722, § 1853. Environmental Pollution

Under the Environmental Protection Act, 1970, No. 8056, § 27(1) (Victoria), any discharge, emission or deposit into the environment of any waste without holding a license is subject to a penalty of $A500 for the first offense and $A5,000 for a second or subsequent offense. In the case of a continuing offense a daily penalty of $A2,000 may be imposed. A failure to comply with the terms of a license to discharge waste is punishable by a penalty of $A5,000 and for a continuing offense a daily penalty of $A2,000 may be imposed. Similar penalties are set for contravention of provisions concerning the pollution of water, noise pollution, the disposal of solid wastes, etc.

CRIMINAL LAW IN NEW SOUTH WALES[1]

(Volume 1)

COAL MINES REGULATION ACT, 1912–1964

[1477] *Nature of Act*

The Act provides for the regulation of coal mines and collieries.

[1479]

69. Imprisonment for wilful neglect endangering life or limb. Where a person who is an owner, agent, manager, or under-manager, of, or a person employed in

[1] Prepared by Ray Watson, B.A., LL.B. and Howard Purnell, LL.B.

or about a mine, is charged with any offence against this Act which, in the opinion of the court before which he is so charged, is one which was reasonably calculated to endanger the safety of the persons employed in or about the mine, or to cause serious personal injury to any of such persons, or to cause a dangerous accident, and was committed wilfully by the personal act, personal default, or personal negligence of the person accused, and the court is of opinion that a fine will not meet the circumstances of the case, the court may commit such person for trial at a court of quarter sessions and upon conviction he shall be liable to imprisonment with or without hard labour for a period not exceeding three months.

As to the meaning of "wilfully", see par. [51], ante.

"Neglect is the want of reasonable care, that is the omission of such steps as a reasonable (parent) would take, such as are usually taken in the experience of mankind."

The indictment should follow the relevant words of the section.

AUSTRIA [1]

Austrian law contains no criminal provisions that establish a duty of a manager to disclose dangerous products to governmental authorities. However, one provision of Austrian law is worthy of mention in this context: Section 286 of the Criminal Code [2] establishes an affirmative duty to prevent crimes, by notifying the potential victim or the authorities when this notification would prevent the crime. But this duty exists only for intentional crimes punishable by imprisonment of more than one year. The provision, enacted in its present form in 1974, has to date not yielded any judicial interpretation that would indicate its applicability in a products liability context.

BELGIUM [1]

A search of Belgian legislation did not reveal any comparable provision directly involving criminal negligence violations of health and environmental hazards. A similar nondisclosure provision appears, however, the the General Regulation for the Protection of Labor, article 148 (10) in the wording of the Royal Decree of April 21, 1975. Pursuant to this provision, the employer has to immediately warn workmen of any danger from substances with which they come in contact while performing their duties. In addition, the Committee of Safety, Hygiene and Improvement of the Place of Work must be informed of locations in the plant where such substances are being used or stored. After investigating the situation, the said Committee then reports its findings to the employer and to the proper government departments, especially the Department of Labor.

Infraction of the above provision is punishable by a fine of from 26 to 500 francs or by imprisonment from 8 days to one year or by both.

CANADA [1]

I. INTRODUCTION

Although the Canadian Constitution vests "exclusive jurisdiction in matters of the criminal law in the Federal Government," [2] the courts have long held that the the provinces have authority to prescribe criminal penalties for contraventions of statutes within their jurisdiction.[3] As a general rule, the powers of the provinces are greater than are those of the individual states in the United States. In fact, it is questionable whether the Federal Government could validly pass legislation as broad as the proposed amendments to the Federal Criminal Code which are contained in Bills H.R. 4973 and S. 1722. This is not to say that the federal laws, including certain provisions of the Criminal Code,[4] would not cover some of the situations and activities envisioned by the proposed amendments, but that environmental control, products safety, and matters of employment are

[1] Prepared by Dr. Edith Palmer, Senior Legal Specialist, European Law Division, Law Library, Library of Congress, February 1980.
[2] Strafgesetzbuch vom 23. Jänner 1974, Bundesgesetzblatt [official law gazette of Austria], No. 60/1974.
[1] Prepared by Dr. George E. Glos, Legal Specialist, European Law Division, Law Library, Library of Congress, February 1980.
[1] Prepared by Stephen F. Clarke, Legal Specialist, American-British Law Division, Law Library, Library of Congress, February 1980.
[2] British North America Act, 1867, 30 & Vict. c. 3, § 91(27).
[3] Russell v. R., 7 A.C. 829 (P.C. 1882).
[4] The Criminal Code, Can. Rev. Stat. c. C-34 (1970), as amended.

substantially regulated by the provinces in Canada. If the Federal Government attempted to extend its jurisdiction in these areas through its "criminal power," the courts would likely find that many aspects of employment, environmental, health and safety law are not truly "criminal" matters and that the Federal Government had exceeded its jurisdiction. Consequently, the criminal law in Canada is a composite of federal and provincial legislation.

II. BILL H.R. 4973, § 1822: THE AFFIRMATIVE DUTY OF DISCLOSURE

A. Disclosure to the Government

Neither federal nor provincial law in Canada specifically imposes a general duty on all "managers" to disclose dangers associated with a product to appropriate governmental agencies. Certain statutes, such as the Motor Vehicle Safety Act [5] and the Motor Vehicle Tire Safety Act [6] do impose a duty on "manufacturers, distributors, and importers" to give notice of defects which have been discovered in their products, and other statutes provide that certain manufacturers must make information available to government inspectors on request, but these statutes do not establish a general duty on all persons. The penalties for contraventions of the Motor Vehicle Safety Act, the Motor Vehicle Tire Safety Act, and other regulatory statutes are contained in those statutes and not in the Criminal Code.

B. Disclosure to Employees

In the Province of Ontario, the Occupational Health and Safety Act of 1978 states as follows:

> 14(2)—An employer shall—
>
> (a) provide information, instruction and supervision to a worker to protect the health or safety of the worker;
>
> (c) acquaint a worker or person in authority over a worker with any hazard in the work and in the handling, storage, use, disposal and transport of any article, device, equipment, or a biological, chemical or physical agent:
>
> (d) afford assistance and co-operation to a committee and a health and safety representative in the carrying out by the committee and the health and safety representative of any of their functions.[7]

Additionally, the Act requires employers to establish an occupational health service for workers and to maintain this office according to standards set out by the provincial government.[8] An employer who fails to comply with these provisions of the Occupational Health and Safety Act "is guilty of an offense and on summary conviction is liable to a fine of not more than $25,000 or to imprisonment for a term of not more than twelve months, or to both." [9]

There are no comparable laws of the Federal Government requiring employers to inform employees of dangers associated with a product or manufacturing process.

III. S. 1722, § 1017 RECKLESS ENDANGERMENT

Section 202 of the Criminal Code provides as follows:

> (1) Every one is criminally negligent who—
>
> (a) in doing anything, or
>
> (b) in omitting to do anything that it is his duty to do, shows wanton or reckless disregard for the lives or safety of other persons.
>
> (2) For the purposes of this section, "duty" means a duty imposed by law." [10]

If as a result of criminal negligence, bodily harm or death are caused, the maximum penalties are 10 years and life imprisonment, respectively.[11]

The criminal negligence section of the Criminal Code, unlike the proposed amendment contained in bill S. 1722, does not specifically refer to offenses under other statutes, but instead refers to "duties" established by the law. The courts have held that a duty can be established either by a federal or provincial law; however, a more breach of duty is not a *per se* case of criminal negligence. To convict a person under § 202, it is still necessary to show "wanton or reckless

[5] Can. Rev. Stat. c. 26 (1st Supp. 1970).
[6] 1974–75–76 Can. Stat. c. 96, as amended.
[7] 1978 Ont. Stat. c. 83, § 14.
[8] Id. § 15.
[9] Id. § 37.
[10] Criminal Code, Can. Rev. Stat. c C-34 (1970), as amended.
[11] Id. §§ 203 & 204.

disregard for the lives or safety of other persons." [12] This phrase has not been clearly defined by the Supreme Court of Canada, but in a recent Ontario decision the court stated that "wanton and reckless" does not mean "merciless, inhuman or malicious." [13] Thus, it is not necessary to show that the defendant intended to injure or harm the particular victim of his behavior, but merely that the defendant acted with disregard for the safety of persons generally.

BILL S. 1722, § 1853: ENVIRONMENTAL POLLUTION

Both the Federal Government and the provinces have enacted a number of environmental control laws. The most important federal acts are the Fisheries Act,[14] the Canada Water Act,[15] the Clean Air Act, and the Canada Shipping Act.[16] As an example of provincial legislation, Ontario has passed the Ontario Water Resources Act,[17] the Environmental Protection Act,[18] and the Conservation Authorities Act.[19] Each of these statutes contains its own criminal penalties for violations of the standards it sets. For example, violations of any provisions of the Environmental Protection Act, which covers many types of water, air, and land pollution is punishable by a maximum fine of $5,000 for a first offense and $10,000 for every subsequent offense.[20] Under the Federal Clean Air Act, offenders in breach of emission standards are liable to a maximum fine of $200,000 for each offense.[21]

Additionally, there are at least two provisions of the Criminal Code that could be applicable to problems of water, air, and noise pollution. One is the offense of committing a common nuisance and endangering the lives, safety or health of the public.[22] The maximum penalty for this indictable offense is 2 years imprisonment. The second provision of the Code is the offense of mischief.[23] It is committed by wilfully doing an act that obstructs, interrupts or interferes with the lawful use, enjoyment, or operation of property. For committing such an act, a person may be convicted of either a summary or indictable offense.

V. CONCLUSION

For constitutional reasons, both the Federal and provincial governments in Canada have enacted legislation in matters of employment, occupational health and safety, and environmental control. The broadest criminal offenses are contained in the Criminal Code. Specific offenses are contained in other federal statutes and, more importantly, in various provinicial statutes. In neither case are all of the Canadian criminal provisions relating to the areas of the law covered by Bills H.R. 4973 and S. 1722 consolidated or contained in a comprehensive criminal code.

DENMARK AND THE OTHER SCANDINAVIAN COUNTRIES[1]

Denmark and the other Scandanavian countries do not have broadly applicable criminal law provisions that establish a general affirmative duty to disclose

[12] R. v. Titchner, 29 D.L.R. (2d) 1 (Ont. C.A.).
[13] R. v. Petzoldt, [1973] 2 O.R. 481.
[14] Can. Rev. Stat. c. F-14 (1970), as amended.
[15] Can. Rev. Stat. c. 5 (1st Supp. 1970), as amended.
[16] Can. Rev. Stat. c. 27 (2d Supp. 1970), as amended.
[17] Ont. Rev. Stat. c. 332 (1970), as amended.
[18] [1971] 1 Ont. Stat. c. 86, as amended.
[19] Ont. Rev. Stat. c. 78 (1970), as amended.
[20] [1971] 1 Ont. Stat. 86, § 102(1), as amended.
[21] 1970-71-72 Can. Stat. c. 47, §§ 9 & 33(1).
[22] Can. Rev. Stat. c. C-34, § 176 (1970).
[23] Id §§ 386 & 387.

[1] Dr. Finn Henriksen, Senior Legal Specialist, European Law Division, Law Library, Library of Congress, February 1980.

criminal negligence violations with regard to health and environmental hazards, including such hazards in foreign countries, similar to those proposed in H.R. 4973 and S. 1722 (96th Congress, 1st Session).

Although these countries do not have broad and sweeping provisions on criminal negligence, they do have a number of rather narrow criminal law provisions that protect against specific kinds of criminal negligence with regard to health and environment, such as sections 23, 141, 142, 186–189, 195, and 253 of the Danish Criminal Code No. 411 of August 17, 1978. A translation of these Danish provisions is found in Appendix I,[2] and somewhat similar specific provisions are found in the Norwegian Criminal Code No. 10 of May 22, 1902, and the Swedish Criminal Code of December 21, 1965. With regard to the Danish section 23 on cooperation in the commission of a crime, it should be noted that this provision has been found broad enough by the courts to establish criminal liability for corporations and for high-ranking officials who by their passivity have tolerated the commission of unlawful acts by low-ranking employees.[3]

To establish a broad and generally applicable obligation on the part of citizens to notify the police or other public authorities about planned or committed crimes would scarcely be possible in Scandinavia. Section 141 of the Danish Criminal Code is the only provision of that Code that within a very narrow area establishes such a general obligation. However, it appears from a much used commentary to the Code that this provision has seldom been used.[4] Generally, it seems to be agreed that section 141 is aimed at protecting the most fundamental interests of society, such as national security and the life and welfare of its citizens. In addition, there must be a clear and present danger for "the life or welfare of human beings." It has been found that section 141 does not apply to narcotics crimes,[5] and the assumption may be made that it would be very difficult, if not impossible, to apply this provision to negligent crimes.

More useful provisions on an affirmative duty to disclose or to notify are found in legislation outside the criminal code, such as statutes on food and drugs, on poisons and other substances dangerous to health, and on labor protection. However, these obligations all relate to specifically described situations and cannot be said to reflect any general rule on an affirmative duty to disclose or notify on criminal negligence violations with regard to health or the environment.

The Scandinavian preference for criminal law provisions with clear and specifically described criminal law delicts, rather than a broad and sweeping rule on an affirmative duty to disclose or notify, may have some connection with the Scandinavian discussion of criminal omissions. It seems today to be rather generally accepted in Scandinavia that in order to establish a criminal omission the omission has to be supplemented by some additional and clearly described elements, such as an endangering act, a duty to supervise property or subordinates, a duty of care, a contractural relationship, or the like. An expose in English on the Scandinavian views on these matters by prominent Professor Andenaes is included as *Appendix II*,[6] and his very substantial book in Norwegian on criminal omissions is considered a major contribution to Scandinavian criminal law literature.[7]

As a consultant to the United States Government, Andenaes has also written some critical remarks on the proposed section 301, subsection (2), of the Federal Criminal Code, as it was proposed in 1970.[8] This suggested section 301, subsection (2), has some relationship to the proposed Title 18, section 1822 in H.R. 4973, insofar as section 301 provided that a person "who omits to perform an act does not commit an offense 'unless a statute provides that the omission is an offense or otherwise provides that he has a duty to perform the act.'" The comments on this matter by Andenaes are included as Appendix III because a defense attorney who might want to attack the proposed Title 18, section 1822, on the basis of vagueness and indefiniteness probably could find some support in Andenaes' writings.

[2] Knud Waaben, trans., The Danish Criminal Code (Copenhagen, 1958). The translation of the cited sections reflects the current wording of these provisions.
[3] Vagn Greve, and others, Straffeloven—Almindelig Del 201–205 (Copenhagen, 1976).
[4] Vagn Greve, and others, Straffeloven—Special Del 77–79 (Copenhagen, 1975).
[5] Id at 78.
[6] Johannes Andenaes, The General Part of the Criminal Law of Norway 127–142 (Oslo, 1965).
[7] Johannes Andenaes, Straffbar Unnlatelse (Oslo, 1942).
[8] The National Commission on Reform of Federal Criminal Laws, 3 Working Papers 1453–1454 (Washington, D.C., 1971).

APPENDIX I

DENMARK LAWS AND STATUTES.—THE DANISH CRIMINAL CODE[1]

* * * * * * *

CHAPTER IV

ATTEMPT AND COMPLICITY

* * * * * * *

141. (1) Any person who, knowing that the commission of any of the offences against the State or against the supreme authorities of the State dealt with in ss. 98, 99, 102, 106, 109, 110, 111, 112 or 113 of this Act or of an offence endangering the life or welfare of human beings or substantial public property is intended, does not make efforts, to the best of his power, to prevent the offence or its consequences, if necessary by informing the public authorities, shall be liable, provided that the offence is committed or attempted, to simple detention or to imprisonment for any term not exceeding three years or, in extenuating circumstances, to a fine.

(2) Provided that, if the efforts to prevent the commission of any of the offences referred to in the foregoing subsection would endanger the life, health or welfare of himself or of his near relatives, the person who fails to make such efforts shall not be punished.

142. Any person who fails, on request, to give assistance to any person wielding public powers with a view to averting an accident or an offence endangering the life, health or welfare of others, when such assistance might be given without danger or sacrifice of any great importance, shall be liable to a fine or to simple detention for any term not exceeding three months.

* * * * * * *

CHAPTER XX

OFFENCES CAUSING DANGER TO THE PUBLIC

180. Any person who sets fire to his own property or to the property of others under such circumstances as must make his realise that the lives of other persons are thereby exposed to imminent danger, or if it is done for the purpose of effecting extensive damage to the property of others or to incite sedition, looting or other similar disturbance of public order, shall be liable to imprisonment for not less than four years.

181. (1) If, otherwise, any person causes fire to be started on the property of others, he shall be liable to imprisonment for not less than six months nor more than twelve years.

(2) The same penalty shall apply to any person who, with intent to defraud any fire insurance company, to violate the rights of mortgagees or for a similar unlawful purpose, causes fire to be started on his own property or on the property of some other person, with the consent of the latter.

(3) If the object set on fire is of minor importance or if the perpetrator is assumed not to have considered the possibility that any major damage was capable of being caused by the fire, the penalty may be reduced to the minimum degree of imprisonment.

182. Any person who through negligence causes fire to be started on the property of others or to the prejudice of the pecuniary interests of others shall be liable to a fine or to simple detention or, in aggravating circumstances, to imprisonment for any term not exceeding two years.

[1] By Dr. Knud Waaben, professor A.I. in the University of Copenhagen.

183. (1) Any person who, to the prejudice of the person or property of others, causes explosion, spreading of noxious gases, floods, shipwreck, railway or other traffic accident shall be liable to imprisonment for not less than six months nor more than twelve years.

(2) If such act has been committed under the circumstances indicated in sect. 180 of this Act, the penalty shall be imprisonment for not less than four years.

(3) If the act has been committed through negligence, the penalty shall be a fine or simple detention or imprisonment for any term not exceeding two years.

184. (1) Any person who, without being liable to punishment under sect. 183 of this Act, impairs the safe operation of railways, ships or planes, motor vehicles or similar means of communication, or safe traffic on public highways, shall be liable to imprisonment for any term not exceeding six years or, in extenuating circumstances, to simple detention.

(2) If the act has been committed through negligence, the penalty shall be a fine or simple detention.

185. Any person who, though he could do so without particular danger or sacrifice to himself or to others, fails to the best of his power, by notification made in due time or in any other way appropriate in the circumstances, to avert a fire, explosion, spreading of noxious gases, floods, damage to ships, railway accidents or similar accidents involving danger to human lives, shall be liable to a fine or to simple detention for any term not exceeding six months.

186. (1) Any person who endangers the life or health of others by bringing about a general shortage of drinking water or by adding injurious substances to reservoirs, water-mains or water-courses shall be liable to imprisonment for any term not exceeding ten years.

(2) If such act has been committed through negligence, the penalty shall be a fine or simple detention or, in aggravating circumstances, imprisonment for any term not exceeding one year.

187. (1) Any person—

(I) who adds poison or other substances to products intended for sale or general use so as to endanger the health of others when the product is used for the purpose for which it is designed; or

(II) who, when such products have been tainted to such extent as to make their consumption or use as designed injurious to health, subjects them to a process likely to conceal their tainted condition; or

(III) who, while concealing his interference therewith, offers for sale or otherwise tries to spread products which have been treated as mentioned in paragraphs (I) or (II) of this subsection;

shall be liable to imprisonment for any term not exceeding ten years.

(2) If such act has been committed through negligence, the penalty shall be a fine or simple detention or, in aggravating circumstances, imprisonment for any term not exceeding one year.

188. (1) Any person who, without being liable to punishment under sect. 187, subsect. (1), paragraph (III), of this Act, offers for sale or otherwise tries to circulate, while concealing the injurious nature of the substance,

(I) foodstuffs or stimulants being injurious to health because of corruption, or of defective preparation, mode of conservation or for similar reasons; or

(II) articles for use endangering the health of others when used in the customary way;

shall be liable to imprisonment for any term not exceeding six years or, in extenuating circumstances, to simple detention or a fine.

(2) If such act has been committed through negligence, the penalty shall be simple detention or a fine.

189. (1) Any person who offers for sale or otherwise tries to circulate as drugs or preventive remedies against diseases products which he knows to be unsuitable for the purpose indicated and, if used for that purpose, to be likely to endanger the life or health of others shall be liable to imprisonment for any term not exceeding six years.

(2) If such act has been committed through negligence, the penalty shall be simple detention or a fine.

190. If, under conditions corresponding to those indicated in ss. 186 to 189 of this Act, only the life or health of domestic animals is endangered, a proportionately milder punishment within the statutory range of punishment shall be inflicted.

191. Any person who unlawfully sells drugs or poison or who sells such articles on conditions other than those prescribed by law or in pursuance of a law shall be liable to a fine.

192. (1) Any person who, by contravention of the provisions laid down by law or in pursuance of a law for preventing or combating a contagious disease, brings about the danger that such a disease will reach or spread among the public shall be liable to simple detention or to imprisonment for any term not exceeding three years.

(2) If the disease is of such nature that, under the law, it shall be liable to or at the time of the commission of the act is in fact under public treatment or against the introduction of which in the Realm special measures have been taken, the penalty shall be imprisonment for any term not exceeding six years.

(3) Any person who in such manner brings about a danger that a contagious disease will reach or spread among domestic animals or cultivated or other profitable plants shall be liable to simple detention or to imprisonment for any term not exceeding two years or, in extenuating circumstances, to a fine.

(4) If such contravention has been committed through negligence, the penalty shall be a fine or simple detention or, in aggravating circumstances, imprisonment for any term not exceeding six months.

CHAPTER XXI

VARIOUS ACTS CAUSING PUBLIC DAMAGE

* * * * * * *

195. Any person who offers for sale foodstuffs which he knows to be falsely constituted or adulterated without their special nature being indicated unambiguously on the article itself or its label or its packing (as well as on the invoice, in case such a document had been made out) shall be liable to a fine or simple detention for any term not exceeding three months. If the contravention is committeed in the exercise of a trade, the offender may, in case of recidivism, be deprived of the right to carry on such trade, for a specified period or for ever. This consequence of the sentence may be annulled by Royal Order.

* * * * * * *

248. (1) Where the injured party has given his consent to the assault, the penalty may be reduced and, if covered by sect. 244, subsect. (1), of this Act, the act is not punishable.

(2) Where blows have been inflicted in a brawl or where the person attacked has returned such blows, the penalty may be reduced or, in the circumstances dealt with in sect. 244, subsect. (1), of this Act, be remitted.

249. (1) Any person who negligently inflicts serious harm on the person or health of others of a nature not falling within the provisions of sect. 246 of this Act shall be liable to a fine or to simple detention. Prosecution shall take place only at the request of the injured party, unless considerations of public policy call for prosecution.

(2) Any person who negligently inflicts harm on others of the nature described in sect. 246 of this Act shall be liable to simple detention or to a fine or, in aggravating circumstances, to imprisonment for any term not exceeding four years.

250. Any person who reduces some other person to a helpless condition or abandons, in such condition, any person entrusted to his care shall be liable to imprisonment for a term which, where the act results in death or grievous bodily harm and in other aggravating circumstances, be increased to eight years.

* * * * * * *

252. Any persons who, for the purposes of gain, by gross recklessness or in similar inconsiderate manner, exposes the life or health of others to impending danger shall be liable to simple detention or to imprisonment for any term not exceeding four years.

253. Any person who, though he could do so without particular danger or sacrifice to himself or others, fails

(I) to the best of his power to help any person who is in evident danger of his life, or

(II) to take such action as is required by the circumstances to rescue any person who seems to be lifeless, or as is ordered for the care of persons who have been victims of any shipwreck or any other similar accident;

shall be liable to a fine or to simple detention for any term not exceeding three months.

APPENDIX II

THE GENERAL PART OF THE CRIMINAL LAW OF NORWAY[1]

CHAPTER 13. CRIMINAL OMISSIONS

I. GENUINE NON-ACTION OFFENSES

Many penal provisions are directed against a failure to act. A modern, highly organized society places a duty to act upon its members to a far greater extent than does a primitive society. The authorities require notification not only of the great events in a person's life—birth, marriage and death—but also of the lesser events: a change of residence or employment, and the previous year's income. The businessman must keep books, the home owner must eliminate fire hazards, the car owner must obtain insurance, the employer must enroll his employees into the social security system and deduct income tax payments. Usually, there is a threat of punishment behind the request in order to ensure its observance. Moreover, failure to fulfill private obligations is sometimes made punishable. See, for example, Penal Code, chapter 41, which deals with misdemeanors pertaining to private employment. In all these cases, we speak of genuine non-action offenses, or pure omission offenses.

Of course, there are occassionally doubts as to how far such enactments extend. In principle, however, they do not create special difficulties of interpretation. This holds true whether the word omission is used or the law uses other expressions, such as "neglect," "default" or "fail to fulfill" which connote the same idea. Sometimes a penal provision will contain two or more alternatives describing the offense partly as an act, and partly as an omission. See, for example, Penal Code, § 327 (which speaks for anyone who *ignores* a civil servant's request for assistance or *prevents* another from rendering such assistance), § 428 and others. No special difficulties are created here either.

Commission by omission

Most penal provisions, however, define the offense in such a way that they seem to aim only, or at least mainly, at positive acts. They speak about the one who *causes* a result, *removes* an object, *falsifies* a document or *forces* another to do something. Here, the question arises whether these provisions can be violated by omissions as well as actions. And if so, how? This is the problem of commission by omission.

II. PENAL CODE SECTION 4 DOES NOT SOLVE THE PROBLEM OF THE PUNISHABILITY OF OMISSIONS

At first glance one would think that the problem was solved by Penal Code, § 4, which states: "Whenever this code mentions the word act, it also includes the omission to act, unless otherwise expressly provided or evident from the context."

Upon closer analysis, however, it becomes clear that § 4 does not solve the problem of the punishability of omissions. The word "act" is used in very few of the provisions of the Code, and it was undoubtedly not the intention that an omission should be equalized with an act only in these cases and in no others. The legislative history of Penal Code, § 4, shows that its purpose was something quite different. In order to have a common term for felony and misdemeanor, the law uses the expression "punishable act." This applies, first of all, to the provisions of the general part (see, for example, §§ 1, 2, 34–36, 52), but also to the special part (see, for example, §§ 118, 131, 168). And the purpose of § 4 was to make it clear that these provisions were to be used whether the offense took the form of an act or an omission (S.K.M., pp. 10–11).

[1] By Johannes Andenæs, DR. JUR., translated by Thomas Ogle, LL.B.

However, Penal Code, § 4, goes somewhat further than this purpose requires. § 4 speaks not only of "punishable act" but of the word "act" generally. The word appears alone, for example, in §§ 266 and 270, which penalize the person who forces or induces another to commit "an act which causes loss or danger of loss to himself or to the person for whom he acts." Thus, these provisions also apply to one who forces or induces another into an omission resulting in a loss. In some provisions the expression is used as a direct description of the punishable conduct; for example, Penal Code, § 212, refers to "obscene conduct in acts or words." In these cases the words of the law are not chosen with any thought of violation by omission. When "act" is mentioned besides "word," *e.g.*, in § 212, the purpose is to describe the different modes of indecent conduct. The legal definition, however, must also be used in these cases (see S.K.M., p. 11). But this means only that an omission is covered by the law, if it otherwise satisfies the conditions for punishability. The law does not specify *when* this is the case; for example, under what circumstances an omission may amount to defamation or obscene conduct. And it cannot be interpreted antithetically: omissions cannot possibly be equalized with positive acts only under those penal provisions which use the word "act."

III. CAN AN OMISSION CAUSE ANYTHING?

A question which has been widely discussed, is whether an omission can be the cause of anything. If a mother lets her new-born baby lie without food or care until it dies, has she then, by her failure to act, caused the death of the child? If I see a lighted cigarette ignite the underbush of a forest, and yet fail to extinguish it, have I then caused the forest fire? Some answer no to these questions, basing their position on the proposition that an initiating force must set the process of cause and effect in motion. The proposition is often expressed by the Latin maxim *ex nihilo nihil*—"out of nothing, nothing is created." Others answer yes, on the theory that a cause means the same as a necessary condition. An omission is then the cause of an event if the event would not have occurred, had the omission not happened, that is, if a positive act had taken place instead.

Keeping in mind that here, as elsewhere, the matters of real legal relevance are the terms of the law, such as "causing," "effects" and other expressions of causation, the question will not create any difficulty in principle. Common language usage often recognizes an omission as a cause. No one hesitates to say that the failure of a railroad worker to give a signal or to throw a switch is the cause of the train wreck; that a doctor's failure to properly dress a wound after an operation has caused his patient to bleed to death; or that the failure of a camper to extinguish his campfire has caused the forest fire. And the same language usage is encountered in the law. A number of expressions, such as "to cause" and "to bring about," are used in may legal provisions which are expressly directed against non-action (see, for example, Penal Code, §§ 119, 150, 158, 310); or the law speaks in terms of a harm occurring as a *result* of an omission (see, for example, §§ 240 and 241), or *due* to it (§ 387). Moreover, the legislative history supports the proposition that omissions must sometimes be regarded as causes.

The condition for treating an omission as the cause of a harm is, of course, that the non-acting person had a chance to avoid the result. Language usage requires something more, however. An omission will be considered a cause only where, to a greater or lesser degree, one could have expected the person to act. Only under this condition can the omission give the *explanation* of the result. The stronger the expectations, the easier it will be to characterize an omission as a cause. No one will hesitate to say that a railroad worker, who failed to report an avalanche across the tracks, has caused the ensuing derailment. Such neglect by a member of the patrol service is an essential factor in an explanation of the accident. If a third person saw the avalanche without reporting it, there will be more doubts, for, in general, there can be no well-based expectation that accidents will be prevented by the interference of third parties. Thus, the neglect will be a more secondary basis of explanation. The concrete application of the principle involved here creates many doubtful questions of opinion. In interpreting the law, clearly, one cannot rely exclusively on the purely linguistic meaning of words, which will often be rather vague, but must take additional considerations into account, such as the necessity for coherence in the law, and the desire to arrive at a reasonable result.

IV. THE THEORY OF LEGAL DUTY

It has been customary to seek a general principle underlying the punishability of omissions. The dominant doctrine in German and Scandinavian theory is the *legal duty* doctrine. It holds that the failure to prevent a harmful result must be equalized with the active bringing about of the result wherever the person who failed to act had a legal duty to act. The formulation is primarily directed towards the offenses described as the causation of a harm, but the same principle is usually supposed to apply to all offenses of commission regardless of the expressions which the law uses. Such a legal duty would, according to theory, exist on three different grounds: (1) statute, (2) contract, (3) pre-existing endangering acts.

This theory must be discarded for several reasons. First, it does not sufficiently take into consideration the fact that we are dealing with a question of interpretation which cannot be solved in any general manner. The description of the act in the various penal provisions may be more or less formulated in terms of activity. Some provisions are almost impossible to violate by an omission, while others have a more general formulation. Penal Code, § 407, imposes punishment on one who "violates the rights of others by fishing, hunting, trapping, catching or killing animals not owned by anyone." If a forest warden ignores poachers, he is perhaps violating his legal duties to the owner, but this does not mean that he can be prosecuted under that section. On the other hand, it is not difficult to imagine omissions which fall within Penal Code, § 325, No. 1, penalizing any civil servent who "shows gross lack of judgment in his duty," or within § 219, directed against anybody who "by neglect, maltreatment or similar conduct violates his duties toward spouse or children." One can hardly imagine rape (§ 192) committed by omission, whereas incest may have been (§§ 207 and 208); the provisions here penalize the mere act of having intercourse with persons within the forbidden group, and thus apply, for example, to a woman who passively allows her brother or her father to have intercourse with her. For each penal provision a determination must be made as to whether, according to its language and purpose, it can be held to apply to omissions.

But even when limited to the genuine causation offenses, the doctrine is untenable. One cannot take it for granted that a legal duty in one area is applicable to another. According to Penal Code, § 387, everyone has a duty to aid a person who is in apparent and immediate danger of death. There is, in other words, a legal duty to act in such a case, but this obviously does not mean that one who neglects his duty to help shall be held liable for the other's death and thus be convicted of homicide (§ 233). It is obviously the objective of the law to regulate criminal liability exhaustively by § 387. This everyone agrees about, and the doctrine of legal duty is often modified to the effect that a *general duty to aid is* not sufficient to impose liability for causation; a *special duty* is required. However, even where such special legal duties are concerned, liability for omission may be limited to that which follows directly from those rules which impose the duty. According to the common instructions to the nation's police, a policeman has many duties with reference to the prevention of danger and damage. He has to report fires and aid in extinguishing them; he must try to catch dangerous animals which have escaped; he must try to prevent accidents; he should take care of sick persons and those who need help, etc. (see Order in Council of February 6, 1920, with amendments, §§ 82–91). If a policeman intentionally or negligently violates these provisions, he is guilty of a neglect of duty which is subject to punishment under Penal Code, §§ 324–325, and which may result in his dismissal, but there is hardly sufficient reason to impose upon him liability for causation of those results which he should have prevented. A doctor—including one with a private practice—according to § 7 of the Medical Act of April 29, 1927, has the duty to give medical assistance in emergencies. If he refuses to do so, he may be punished under § 20 of that Act, and possibly under Penal Code, § 387, as well, but he can hardly be held liable for intential or negligent homicide if the sick person should die because of a lack of medical care.

Thus, a legal duty is not in itself a sufficient basis of liability for the omission as causation of a specific harm. A more scrutinizing test must be applied to the individual case. And, on the other hand, it cannot be supposed that a legal duty, existing independent of the penal provision, is always a prerequisite to criminal liability. We can use incest as an example. The woman who quite passively allows herself to have intercourse with her brother or father can, as mentioned above,

come under Penal Code, § 207. Outside of the penal provision itself, however, one would seek in vain for a legal duty. Here we are in an area where the law's disapproval cannot be expressed in any other way than by the threat of punishment; if we eliminate that, we are left only with the purely moral reprobation.

In speaking here about legal duty, we have meant a legal duty which exists independently of the penal provision in issue. And it is in this sense that the expression is used in the doctrine of legal duty. But it can be said, of course, that in so far as an omission is punishable, there is also a legal duty to act. In this manner, punishability and legal duty do belong together. In this sense, punishability is the primary matter; the existence of legal duty is merely an expression of the result of interpretation, not a prerequisite for it.

V. THERE MUST BE SPECIAL CIRCUMSTANCES BEFORE AN OMISSION WILL BE HELD TANTAMOUNT TO A COMMISSION

The core of truth in the legal duty theory is that both as to causation offenses and other penal provisions formulated primarily in terms of positive action, *special* circumstances must exist before an omission will be punishable. The final answer can be found only in the Penal Code's special part, in the interpretation of the individual penal provisions. In the general part of the criminal law one can only set out those circumstances which have a *tendency* to render the omission punishable just like active conduct. Such circumstances may be those grounds for duty which are recognized by the doctrine of legal duty, in its common form: statute, contract, and pre-existing endangering acts. But the doctrine is both too limited and too broad. Liability can often exist even though the duty of action cannot be built on any of these foundations. And, on the other hand, it is not enough that such a foundation exists; whether the penal provision, according to its language and meaning, can be applied to the situation must be carefully considered. We will now examine the most important circumstances which can support an equalization of action and non-action. We are especially interested in the causation offenses. but other offenses will also be mentioned as illustrations.

1. Endangering acts

A normal and legal activity will often cause a danger which the actor has a duty to neutralize by proper safety measures. It is often necessary to utilize danger-preventing measures before, or simultaneously with, the doing of a dangerous act. One who is blasting in a populated area must make certain that sufficient warning is given before the blast. If the act is done without the necessary precautions, liability can be based on the positive act; the setting off of the blast was negligent. In other instances, however, it is a subsequent neutralizing act which is required. One who has been digging in the street must see to it that the hole is properly marked when it gets dark; one who has set a fire in the wilderness must make certain that it is extinguished before he moves on; a doctor who commences an operation must see to it that it is finished. Here, liability usually cannot be based upon the dangerous act, since it was not negligent. The liability must be based upon the ensuing omission. The principle for judgment, however, will be the same; the determining factor is whether the acting person has followed through with those safety measures which general common sense would consider necessary. If he has not done so, and harm occurs, he will be criminally liable, provided that the subjective conditions for punishment exist. In these instances, to regard the omission as the cause of the harm is also natural from a linguistic point of view. The act of adopting necessary safety measures is a normal and necessary part of the activity; if these measures are neglected, this neglect will be considerd the explanation of the harm.

Whether liability for omission also applies to those provisions which define the offense in more active terms is often doubtful. A few reported cases will serve as illustrations:

Rt. 1882, p. 576: The manager of a tavern in Bergen had for some time ignored the fact that both waitresses and loose women who frequented the place often retired to a small side room for purposes of prostitution. He considered the prostitutes an attraction for the business. He was, however, found guilty under the Criminal Code, Chapter 18, § 27, which dealt with the keeping of houses of prostitution, and had the case occurred today, he would have been found guilty under Penal Code, § 206, as a person "who furthers the indecent relations of others out of greed."

Rt. 1941, p. 761: Does Traffic Regulations, § 28, which deals with *placing* a vehicle in a place where it disrupts traffic, also apply to a driver who allows his vehicle to remain in one place too long after an accident? The court said yes, but this is hardly tenable.

We have here dealt with situations where safety measures should have been employed as part of normal and legal activity. Can we now go further and set up a *general rule* that one who has created a danger will be held liable if he fails to take positive steps to prevent the harm? We have but one legal provision authorizing such liability. Penal Code, § 43, states that when the law increases the punishment because a punishable act has created some unforeseen consequence, this increase will apply even though the perpetrator could not have foreseen the possibility of the result, if "in spite of his ability to do so, he has failed to prevent such a consequence after having become aware of the danger." But this section does not say whether the person, due to his omission, can be held completely liable as the intentional perpetrator of the result, and it speaks only of those situations where the danger is created by a punishable act.

Suppose that a person is assaulted one winter night on a lonely country road. He is armed and disables his assailant by shooting him in the leg; then he leaves, letting the wounded man take care of himself. The infliction of the wound was a legal act of self-defence, and the assaulted person can hardly be held guilty of intentional murder if his assailant freezes or bleeds to death. The assaulted person should hardly have any greater duty to care for the assailant than would a third person.

In many instances involving the creation of danger the solution will be extremely doubtful. Such factors as intentional or accidental, legal or illegal creation of the danger must be considered, as well as the nature of the penal provision. A few examples from foreign judicial practice might serve as illustrations. A man locks the door to a room without knowing that a woman is inside. After he has been informed of that fact he fails to unlock the door. Can he be convicted of intentional false imprisonment? (Penal Code, § 223.) A man with a lighted pipe walks near a hayloft. He stumbles and drops the pipe. The hay catches fire, but he does not put the fire out. Can he be convicted of intentionally causing the damage (§§ 148 or 291), or of defrauding the insurance company (§ 272), if he lets it burn because he knows that the farmer is in financial difficulties but is well insured? The defendant was convicted in all the examples mentioned. The decisions would likely have been the same under Norwegian law.

2. Duties of supervision

One who stands in a supervisory position in relation to a person or a thing may in many instances incur criminal liability by neglect.

(*a*) *Supervision of property.*—The occupant in possession of real property has the duty to see to it that it does not create dangers to the surroundings. He has the duty to maintain stairways and elevators, to prevent dangerous ice slides, accumulation of snow, etc. His duty to pay damages if he neglects to supervise and properly maintain the property is quite clear. He probably must also be held criminally liable for having caused the harm which results from his neglect.

Nevertheless, this is not of any great importance, since intent will almost never exist, and in cases of negligence it will usually be more natural to apply the provisions of Penal Code, § 351, making it a misdemeanor to cause danger to the traffic by omitting to maintain a building, road, bridge or handrail, or by similar conduct. Once in a while, the owner may be liable under other penal provisions. The following cases have arisen in practice: the owner of a house discovers that a third person has secreted stolen goods in it, but he fails to intervene. Can he be convicted of receiving stolen property as the one who has "concealed" or "stored" it, or of being an accessory to the hiding or keeping of them by the thief? The answer to that question probably must be no.

An owner can also be held liable for harm caused by dangerous *chattels*, if he does not take proper precautions. For example, dynamite and percussion caps may be misused because they are not properly stored.

Similarly, the owner of animals can be held liable for any harm they cause, if he could have prevented them from doing it. A person who sees his watch-dog attacking the delivery boy without doing anything to prevent it, can be found guilty of negligent or intentional infliction of bodily injury. An amusing case is reported in Rt. 1932, p. 395. A woman was found on another man's land with her herd of cattle feeding all around her. There was no evidence that she had

driven the herd onto the property, but neither had she prevented the animals from entering, and she had let them feed freely. The Supreme Court unanimously held that he conduct constituted an "unlawful exercise of authority" over another person's property (Penal Code, § 396). But it is doubtful whether a farmer who calmly watches his horse eat from his neighbour's haystack can be punished for theft or pilfering (§§ 257 and 262).

(*b*) *Supervision of subordinates.*—An employer or principal has the duty to supervise his employees or servants so as to prevent them from violating the law while in his service. Civil liability for failure to supervise is quite clear. The penal side of the problem, however, involves greater doubts.

Penal Code, § 139, para. 3, imposes punishment on any employer who omits to prevent a felony from being committed in his service, if it was possible for him to do so. A similar provision is found in § 347, which applies to misdemeanors. Thus, the principal is not punished directly as the perpetrator or the accomplice, but rather under these less severe special provisions. Both provisions are limited to cases of intent on the part of the principal: in § 347 this is said explicitly; for § 139, para. 3, it follows from the general rule of guilt in § 40. This is a defect in the law, for here negligence is of the greatest practical importance. To prove intent on the part of the principal is usually quite difficult. Whether the employer is liable when his subordinate cannot be punished because of good faith is also doubtful. In reality there is no reason to exclude liability in such a case, but when the law uses the expressions "felony" and "misdemeanor" to define the conduct of the subordinate, it connotes acts which otherwise satisfy all requirements of punishability.

The next question is whether § 139, para. 3, and § 347 *exhaustively* regulate the principal's liability for the acts of his subordinate. The answer to this is no. Where a penal provision according to its words and meaning applies to the principal's passivity, he will be punished directly according to it. If the penal provision covers negligence, the principal's omission is also punishable in its negligent form. The enactments in § 139, para. 3, and § 347 are significant as *supplements* to those special penal provisions which describe the crime in such a way that the principal's omission is not included.

The question has its most practical significance with the provisions regulating various trades and professions. Important examples of such regulations are those which deal with maximum prices, rationing, export prohibitions and closing times. Here one may say that, as a general rule, sales made by employees are deemed sales by the owner. And since these provisions also apply to a negligent violation, the employer will be guilty whenever he has failed to properly supervise his business. However, the assumption is that the penal provision is not formulated so as to apply only to one who has directly committed the act.

Where provisions in the Penal Code itself are violated, the principal can be punished as the perpetrator only on rare occasions. Whether a farmer can be convicted of theft is doubtful where he has seen his laborer make hay or cut wood on his neighbor's land and has failed to interfere. It is difficult to say that he "carries away" the object or "is an accessory" to the carrying away. Here, Penal Code, § 139, para. 3, comes into play. However, if the farmer later uses the hay or the wood, he will be guilty of embezzlement. (Penal Code, § 255).

3. Duties of care

Family relationship creates not only duties of economic support, but also duties of personal care. This applies especially to the relationship between parents and children, but also to that between the spouses themselves. We have a large number of provisions against the breach of these duties—Penal Code, §§ 219, 240 and 241; see also § 242, para. 2. These special provisions are not exhaustive, however. There is no doubt that the general provisions as to the infliction or bodily injury and homicide can often be used, provided the subjective conditions for criminal liability exist. Infanticide is occasionally perpetrated by the mother who allows her newborn child to lie without care, while life slowly ebbs away. (See, for example, Rt. 1936, p. 525.) Also, one who knowingly allows his sick spouse or his aged and helpless parent to die from a lack of food and care can be convicted of homicide. From the duty of care, there also follows a duty to prevent children, and insane or retarded persons, from inflicting harm on themselves. If a child falls into a well and drowns because of a lack of supervision, the parents can be found guilty of involuntary manslaughter.

The duty of care cannot be limited so as to apply only to the family in a restricted sense of that word. The master has a certain duty of care not only towards children, parents and other relatives who are members of the family unit, but also towards servants and boarders. And in return, these persons must have a certain duty of care towards each other and towards the master and his family, to the extent that sickness or accident makes support necessary. The common life itself requires a certain solidarity which the law must also express.

4. Contract

According to the doctrine of legal duty, contracts are among the recognized bases of liability. One who is contractually required to prevent a danger should be held criminally liable if he fails to do so.

The contract, however, does not have this effect in itself. Suppose that a skier, far from any people, comes upon someone with a broken leg and accepts 20 kroner as payment for going to the nearest village for help. Having obtained the money, he changes his mind and continues his trip, coldbloodedly allowing the injured man to freeze to death. He can be punished under Penal Code § 387, since he has failed to call for help, and possibly under § 242, para. 2, which punishes anyone who lets another for whom he has a duty to care remain in a helpless condition; but he can hardly be found guilty of intentional homicide merely because he *contractually* agreed to fulfill the duty which the law has placed upon him. As it has been said, non-fulfillment of a promise cannot make a man a murderer.

But a contract often has significance because it creates a relationship of supervision or a duty for care which may be the basis for criminal liability. One who has obligated himself to tend the fire has the same duty to keep it under control as has one who started it himself. A farm manager has the same liability as the owner with respect to dangers which arise out of a lack of supervision and upkeep. A governess, who is to look after the children, has the same liability to protect them from being hurt as the parents. One who has taken it upon himself to care for an aged or sick person is also criminally liable for the discharge of his duties.

5. Public service

Because of their positions, many officials have a duty to prevent certain dangers to the public. The police have the broadest of these duties, which more specialized duties apply for example to the fire department, the health service, and the lighthouse service. If the official fails to fulfill his duties, he will be guilty of punishable neglect of duty (Penal Code, § 324, and special enactments of various types). Whether he is criminally liable for the harm which he should have prevented is another question. The starting point must probably be that the negligence will lead only to liability for neglect of duty according to § 324 or similar provisions (see above, under IV). The result may be different if, as a consequence of the position, a concrete relation of supervision or a duty of care has arisen. The policeman who allows the escape of a prisoner whom he should guard can be punished under Penal Code, § 119 ("a civil servant who by dereliction of duty in office causes the escape of an accused or convicted person"). If a hospital attendant has been ordered to guard an insane person, who, due to his inattention, obtains an opportunity to commit suicide, he may incur criminal liability for involuntary manslaughter (Penal Code, § 239). The duty of public service may also be such as to found liability not only for neglect of duty, but also full criminal liability for the resulting harm. It will be held, for example, that the lighthouse keeper who fails to light the beacon, causing the ship to run aground, has the same liability as if he had turned off the light. Here, the omission is absolutely equal to the positive act.

6. Verbal passivity

People arrive at conclusions, not only from what a person says or does, but also from what he does not do or does not say. When the non-actor realizes that certain conclusions are being drawn from his passivity, he can conduct himself accordingly. In other words, passivity can be used as a method of expression. The eloquent silence may thus be placed in the same category as the direct verbal communication and the act.

Here a question arises whether concurrent silence under certain conditions creates the same liability as an overt expression of corresponding content. The

question is often without practical significance, since liability follows from a broader rule. One who has a duty to warn the neighborhood of an explosion will be deemed liable for any accident which occurs as a result of his neglect to do so (see above, under 1). There is no need to seek a reason for the liability in the fact that the neighborhood has been led astray by the non-action. However, the legal characterization of verbal passivity is significant where the crime consists in exercising a phychic influence on another, such as in *psychic cooperation* in a crime, in *defamation, false testimony* and primarily in *fraud.*

It is difficult, however, to treat all the problems which arise in these various types of felonies uniformly. Here we make only the general observation that an isolated omission rarely is the basis for the inference which the other party draws. Usually it is the omission in connection with certain active behavior which is regarded as decisive. This is especially true when there is a personal contact between the parties; it is the total impression obtained from the situation and from the conduct of the perpetrator which explains the conclusions of the other party. Thus, it is often impossible to determine whether an error or some other psychic effect was caused by action or by non-action; the only possible answer is that both have had an influence. But in these mixed situations, the emphasis will at times be placed on the active element and at other times on the passive element.

VI. THE ENUMERATION IS NOT EXHAUSTIVE

The preceding presentation of circumstances which can form the basis for an equalization of omission of action is not exhaustive. Other circumstances can have the same effect. The determining factor will always be whether a given omission literally falls within the words of the penal provision, and whether the omission, as far as culpability is concerned, equals the normal instances which the provision primarily has in view.

As we have seen, the solution is often doubtful. And this is natural enough, for the penal provisions involved here are formulated with the usual method of breach in mind—a positive act. The omissions which may be covered by the provision thus often lie in the periphery of the words' linguistic meaning. And as far as culpability is concerned, the situation is the same; and omission can more or less approach the normal instances at which the penal provision is primarily aimed, but rarely does it quite reach them. The entire doctrine of commission by omission can truly be said to consist entirely of border-line questions.

FRANCE[1]

The French legal approach concerning environmental and health hazards is based mainly on preventive measures. Any activity that may be harmful to man and his environment requires a permit from the proper administrative authorities. These authorities exercise a regular control on such activities in order to make them comply with the acceptable legal standards. A penalty (fine and/or a jail sentence) is provided for violators of these regulations. As an incentive to compliance, tax deductions are provided for those who install antipollution devices.

As to the question of disclosure, the Law of July 19, 1976,[2] provides that the owner or manager of an installation that may be harmful to public health, safety, and sanitation must disclose the potential environmental dangers to the proper authorities who must in turn inform persons concerned. Moreover, according to the same Law, a decision to erect an installation that may be harmful may be contested in the courts by any interested third party, natural or legal persons and communes. By the same token, the Law of July 12, 1977,[3] compels people dealing with substances dangerous to man or his environment to disclose potential dangers to the administrative authorities. They must also advise people involved as to proper precautions to take in order to avoid such dangers.

If a criminal or noncriminal negligence should occur, any individual whose property or person has been harmed may sue and thus disclose negligence on the basis of article 1383 of the Civil Code,[4] which reads as follows: "Anyone is liable for the damage which he causes not only by his own act but also by his negligence or imprudence."

[1] Prepared by Dr. Tahar Ahmedouamar, Senior Legal Specialist, European Law Division, Law Library, Library of Congress, February 1980.
[2] Journal officiel [official law gazette of France], July 20, 1976, p. 4320.
[3] Id., July 13, 1977, p. 3701.
[4] Code civil 646 (Paris, Dalloz, 1978–1979).

FEDERAL REPUBLIC OF GERMANY[1]

No legislation comparable to H.R. 4973 exists in the Federal Republic of Germany. Recently, however, environmental protection has become an important political issue in the Federal Republic. A new political party, "die grüne Partei," has been established with the explicit purpose of gaining sufficient political power to encourage laws protecting the environment. This new party may seriously jeopardize the reelection chances of the ruling Social-Democrat-Free Democrat coalition in the upcoming elections in November 1980. Whatever the outcome, future legislation on environmental protection in the Federal Republic of Germany is bound to result.

INDIA AND PAKISTAN[1]

PENAL CODE

India and Pakistan have criminal laws that deal with the negligent handling of materials likely to prove dangerous to human beings, such as poisons, fire, explosives, and machinery.[2] The gist of the offenses in all these cases is culpable negligence in regard to the matters mentioned in each section.

Under §§ 284–287, the offense consists in—

(a) doing an act in a rash or negligent manner so as to endanger human life or to be likely to cause hurt or injury to any person; or

(b) knowingly or negligently omitting to take such precaution as is sufficient to guard against any probable danger.

The object of these provisions appears to be protection of the public from danger, hurt or injury from substances which are naturally dangerous.

Section 284

All these sections bearing on the subject are divided into three clauses. The first clause deals with a rash or negligent act, the second clause deals with a conscious or negligent omission, and the third clause deals with punishment for violations. In the first case, the substance may or may not be in the accused's possession; in the second case, the substance must be in his possession, and consequently, he is necessarily called upon to exercise greater vigilence. In the first case, therefore, he cannot be charged for an omission, but in the second, his responsibility being undivided, he may be charged both with an act under the first clause and an omission under the second. In short, a person in possession of a poisonous substance may be charged for a rash or negligent act as well as a mere negligent omission, but a person not in possession cannot be charged for a mere omission. In the first case, there is no liability until the accused does some act; in the second case, his liability commences with and continues during his possession. Moreover, the quantum of diligence required in each case also varies with possession. In the one case, the act must be regulated to guard against not only danger to human life, but also the probable hurt or injury to any person. In the other case, the measure of diligence is the probability of danger to human life.

To sustain a conviction under these provisions, the first question to be asked is: Was the accused in possession of the poison, or was he not in possession? If he was not, the next consideration is: What was his act and was it so "rash or negligent as to endanger human life or to be likely to cause hurt or injury to any person?"

Once the accused is in possession of the poisonous substance, an omission to take proper precautions that are sufficient to guard against a probable danger to human life raises a criminal liability. It is not necessary that the negligent omission be followed by any disastrous consequence. Where such consequence does ensue, it is, of course, an aggravating circumstance, but the offense remains the same so long as the consequence is traceable to nothing more than culpable negligence.

Section 285

This section deals with negligent conduct with respect to fire or combustible matter, while § 286 deals with negligent conduct relating to explosive substances.

[1] Prepared by Dr. Milos K. Radvanyi, Senior Legal Specialist, European Law Division, Law Library, Library of Congress, February 1980.
[1] Prepared by Krishan S. Nehra, Senior Legal Specialist, American-British Law Division, Law Library, Library of Congress, February 1980.
[2] The Indian Penal Code, 1860, No. XLV, §§ 284–287; The Pakistan Penal Code, 1860, No. XLV, §§284–287.

Thus, there is a distinction made between a combustible substance and an explosive substance.

Section 285 extends similarly the provisions of the preceding section to fire or any combustible matter. It is a question of fact in each case, whether the keeping, depositing and manufacturing of flammable substances does create danger to human life and property, and the question must depend upon the circumstances of each case, as it is primarily a question of degree. The points requiring proof herein are:

That the accused did an act with fire or any combustible matter, and

(1) The act was so rash or negligent as—
  (a) Endanger human life, or
  (b) To be likely to cause hurt or injury to any other person.

Or

(2) That he was in possession of it;

(3) That he omitted to take such order with it as would have been sufficient to guard against any probable danger to human life from such fire or combustible matter;

(4) That the omission was negligent or with a knowledge of such probable danger.

Section 286

This is analogous to § 285 except that it concerns explosive substances. The expression "explosive substance" has not been defined in the section or in the General Clauses Act, 1897.[3] In these circumstances, the definition given in the Indian Explosives Act, 1884 would be relevant.[4] This section is not intended to punish every careless act apart from the probability of danger. On the other hand, what the section punishes is an act in which the accused sees or could forsee the danger. The two paragraphs of this section, too, deal with two different aspects of the accused's conduct—one positive, an act, and the other negative, i.e., an omission. Causing hurt or injury denotes any harm whatever illegally caused to any person in body, mind, reputation, or property. In the case of an omission, the offense consists in failure of the accused to take suitable measures and hence, contemplates cases in which the accused has failed to take suitable precautions about an explosive substance in his possesion.

Section 287

This is the last of the sections on the subject and deals with a similar form of offense but the agency employed in each case is different. In § 284, it is poison, in § 285 it is fire, or a combustible substance, in § 286, it is an explosive, and in this case it is machinery. The language of the four sections is the same. There is, however, a slight difference in the second paragraph of § 287 which speaks of the machinery in his possession or under his care. This addition is intended to reach all mechanics employed on the machinery, such as engineers, firemen or the like.

The degree of care required to safeguard against accidents must be decided with reference to the nature of the machinery, the amount of technical knowledge required to manage it, and the precautionary measures in such cases. An employer putting an incompetent person in charge of a machine may conceivably be guilty of doing a rash act endangering human life.

The last part in each of the sections provides for the same punishment for violations, i.e., an imprisonment which may extend 6 months, or with fine not exceeding Rs. 1,000.00 (approximately $130), or with both.

Pollution

In India, the Pollution Control Board under the Act is authorized to give any appropriate directions to a person or an undertaking, which in its opinion is abstracting water from any stream or well in the area or is discharging sewage or trade effluent into any stream or well, and to obtain information as to such abstraction or discharge.[5] In order to check pollution, the Board has also the authority to give orders which may be necessary or expedient to take or avoid a certain action. A failure to comply with the directions of the Board by an occupier entails a punishment of imprisonment which may extend to 3 months, or

[3] No. X.
[4] *Mulraj Dhir* v. *Emperor*, 127 Indian Cas. 562 (1930).
[5] The Water (Prevention and Control of Pollution) Act, 1974, No. 6, §§ 19, 20, 41, and 42.

a fine which may not exceed Rs. 3,000.00 (approximately $250) for every day during which such failure continues after the conviction for the first such failure, or with both. If the convict fails to comply with the directions given by the court, he may be punishable by imprisonment for a term which may extend to 3 months, or with fine extending to Rs. 5,000.000 (approximately $625), or with both; and if the non-compliance continues a daily fine extending to Rs. 1,000.000 (approximately $125) is also provided.

In the mining operations, the owner, agent or the manager are held responsible to ensure that the operations, carried on in connection with the mines, are conducted in accordance with the provisions of the Act and the regulations, rules and by-laws and of any orders made thereunder.[6] The owner, agent and manager of a mine are also obligated to inform the appropriate agency regarding an eruption of dangerous products from the mines or about any mishaps, including accidents. A notice of such happening must be posted on a notice board. An omission to so notify within the time allowed or a failure to post a notice entails criminal liability punishable by imprisonment of 3 months, with fine or with both.[7]

GOVERNMENT OF INDIA, LEGISLATIVE DEPARTMENT

THE INDIAN PENAL CODE—(ACT XLV OF 1860)

[As modified up to the 1st September, 1942]

* * * * * * *

CHAPTER II.—GENERAL EXPLANATIONS

Illustration

A sets fire, by night, to an inhabited house in a large town, for the purpose of facilitating robbery and thus causes the death of a person. Here, A may not have intended to cause death, and may even be sorry that death has been caused by his act; yet, if he knew that he was likely to cause death, he has caused death voluntarily.

[1] [40. Except in the [2] [chapters] and sections mentioned in clauses 2 and 3 of this section, the word "offence" denotes a thing made punishable by this Code.

In Chapter IV, [3] [Chapter VA] and in the following sections, namely, sections [4] 64, [4] 65, [4] 66, [4] 67, [4] 71, 109, 110, 112, 114, 115, 116, 117, 187, 194, 195, 203, 211, 213, 214, 221, 222, 223, 224, 225, 327, 328, 329, 330, 331, 347, 348, 388, 389 and 445, the word "offence" denotes a thing punishable under this Code, or under any special or local law as hereinafter defined.

And in sections 141, 176, 177, 201, 202, 212, 216, and 441 the word "offence" has the same meaning when the thing punishable under the special or local law is punishable under such law with imprisonment for a term of six months or upwards, whether with or without fine.]

41. A "special law" is a law applicable to a particular subject.

42. A "local law" is a law applicable only to a particular part of British India.

43. The word "illegal" is applicable to everything which is an offence or which is prohibited by law, or which furnishes ground for a civil action; and a person is said to be "legally bound to do" whatever it is illegal in him to omit.

44. The word "injury" denotes any harm whatever illegally caused to any person in body, mind, reputation or property.

45. The word "life" denotes the life of a human being, unless the contrary appears from the context.

46. The word "death" denotes the death of a human being, unless the contrary appears from the context.

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[6] The Mines Act, 1952, No. 35, § 18 (India); The Mines Act, 1923, No. IV, §16 (Pakistan).
[7] Id. §§ 23 and 70 (India); §§ 20 and 38 (Pakistan), as amended by Act No. 45 of 1973.
[1] This section was substituted for the original s. 40 by s. 2 of the Indian Penal Code Amendment Act, 1870 (27 of 1870).
[2] This word was substituted for the word "chapter" by s. 2 and Schedule I of the Repealing and Amending Act, 1930 (8 of 1930).
[3] This word, figure and etters were inserted by s. 2 of the Indian Criminal Law Amendment Act, 1913 (8 of 1913).
[4] The figures 64, 65, 66 and 71 were inserted by s. 1 of the Indian Penal Code Amendment Act, 1882 (8 of 1882), and the figures 67 by s. 21 (1) of the Indian Criminal Law Amendment Act, 1886 (10 of 1886).

CHAPTER XIV.—OF OFFENCES AFFECTING THE PUBLIC HEALTH, SAFETY, CONVENIENCE, DECENCY AND MORALS

* * * * * * *

282. Whoever knowingly or negligently conveys, or causes to be conveyed for hire, any person by water in any vessel, when that vessel is in such a state or so loaded as to endanger the life of that person, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

283. Whoever, by doing any act, or by omitting to take order with any property in his possession or under his charge, causes danger, obstruction or injury to any person in any public way or public line of navigation, shall be punished with fine which may extend to two hundred rupees.

284. Whoever does, with any poisonous substance, any act in a manner so rash or negligent as to endanger human life, or to be likely to cause hurt or injury to any person, or knowingly or negligently omits to take such order with any poisonous substance in his possession as is sufficient to guard against probable danger to human life from such poisonous substance, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine, which may extend to one thousand rupees, or with both.

285. Whoever does, with fire or any combustible matter, any act so rashly or negligently as to endanger human life, or to be likely to cause hurt or injury to any other person, or knowingly or negligently omits to take such order with any fire or any combustible matter in his possession as is sufficient to guard against any probable danger to human life from such fire or combustible matter, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

286. Whoever does, with any explosive substance, any act so rashly or negligently as to endanger human life, or to be likely to cause hurt or injury to any other person, or knowingly or negligently omits to take such order with any explosive substance in his possession as is sufficient to guard against any probable danger to human life from that substance, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

287. Whoever does, with any machinery, any act so rashly or negligently as to endanger human life or to be likely to cause hurt or injury to any other person, or knowingly or negligently omits to take such order with any machinery in his possession or under his care as is sufficient to guard against any probable danger to human life from such machinery, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

288. Whoever, in pulling down or repairing any building, knowingly or negligently omits to take such order with that building as is sufficient to guard against any probable danger to human life from the fall of that building, or of any part thereof, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

289. Whoever knowingly or negligently omits to take such order with any animal in his possession as is sufficient to guard against any probable danger to human life, or any probable danger of grievous hurt from such animal, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

290. Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees.

291. Whoever repeats or continues a public nuisance, having been enjoined by any public servant who has lawful authority to issue such injunction not to repeat or continue such nuisance, shall be punished with simple imprisonment for a term which may extend to six months, or with fine, or with both.

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CHAPTER XIV.—OF OFFENCES AFFECTING THE PUBLIC HEALTH, SAFETY, CONVENIENCE, DECENCY AND MORALS. CHAPTER XV.—OF OFFENCES RELATING TO RELIGION

[293. Whoever sells, lets to hire, distributes, exhibits or circulates to any person under the age of twenty years any such obscene object as is referred to in the last preceding section, or offers or attempts so to do, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine, or with both.]

[294. Whoever, to the annoyance of others,

(a) does any obscene act in any public place, or

(b) sings, recites or utters any obsence songs, ballad or words, in or near any public place,

shall be punished with imprisonment of either description for a term which may extend to three months, or with fine, or with both.]

[294A. Whoever keeps any office or place for the purpose of drawing any lottery [not being a State lottery or a lottery authorized by the Provincial Government] shall be punished with imprisonment of either description for a term which may extend to six months, or with fine, or with both.

And whoever publishes any proposal to pay any sum, or to deliver any goods, or to do or forbear doing anything for the benefit of any person, on any event or contingency relative or applicable to the drawing of any ticket, lot, number or figure in any such lottery shall be punished with fine which may extend to one thousand rupees.]

GOVERNMENT OF PAKISTAN, MINISTRY OF LAW AND PARLIAMENTARY AFFAIRS

PAKISTAN LAWS, AND STATUTES—THE PAKISTAN CODE

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CHAPTER II.—GENERAL EXPLANATIONS

41. A "special law" is a law applicable to a particular subject.

42. A "local law" is a law applicable only to a particular part of [the territories comprised in [Pakistan].

43. The word "illegal" is applicable to everything which is an offence or which is prohibited by law, or which furnishes ground for a civil action: and a person is said to be "legally bound to do" whatever it is illegal in him to omit.

44. The word "injury" denotes any harm whatever illegally caused to any person, in body, mind, reputation or property.

45. The word "life" denotes the life of a human being, unles the contrary appears from the context.

46. The word "death" denotes the death of a human being, unless the contrary appear from the context.

47. The word "animal" denotes any living creature, other than a human being.

48. The word "vessel" denotes anything made for the conveyance by water of human beings or of property.

49. Wherever the word "year" or the word "month" is used, it is to be understood that the year or the month is to be reckoned according to the British calendar.

50. The word "section" denotes one of those portions of a chapter of this Code which are distinguished by prefixed numeral figures.

51. The word "oath" includes a solemn affirmation substituted by law for an oath, and any declaration required or authorized by law to be made before a public servant or to be used for the purpose of proof, whether in a Court of Justice or not.

52. Nothing is said to be done or believed in "good faith" which is done or believed without due care and attention.

52A. Except in section 157, and in section 130 in the case in which the harbour is given by the wife or husband of the person harboured, the word "harbour" includes the supplying a person with shelter, food, drink, money, clothes, arms, ammunition or means of conveyance, or the assisting a person by any means, whether of the same kind as those enumerated in this section or not, to evade apprehension.]

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283. Whoever, by doing any act, or by omitting to take order with any property in his possession or under his charge, causes danger, obstruction or injury to any person in any public way or public line of navigation, shall be punished with fine which may extend to two hundred rupees.

284. Whoever does, with any poisonous substance, any act in a manner so rash or negligent as to endanger human life, or to be likely to cause hurt or injury to any person, or knowingly or negligently omits to take such order with any poisonous substance in his possession as is sufficient to guard against probable danger to human life from such poisonous substance, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine, which may extend to one thousand rupees, or with both.

285. Whoever does, with fire or any combustible matter, any act so rashly or negligently as to endanger human life, or to be likely to cause hurt or injury to any other person, or knowingly or negligently omits to take such order with any fire or any combustible matter in his possession as is sufficient to guard against any probable danger to human life from such fire or combustible matter, shall be punished wits imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

286. Whoever does, with any explosive substance, any act so rashly or negligently as to endanger human life, or to be likely to cause hurt or injury to any other person, or knowlingly or negligently omits to take such order with any explosive substance in his possession as is sufficient to guard against any probable danger to human life from that substance, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

287. Whoever does, with any machinery, any act so rashly or negligently as to endanger human life or to be likely to cause hurt or injury to any other person, or knowlingly or negligently omits to take such order with any machinery in his possession or under his care as is sufficient to guard against any probable danger to human life from such machinery, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

288. Whoever, in pulling down or repairing any building, knowingly or negligently omits to take such order with that building as is sufficient to guard against any probable danger to human life from the fall of that building, or of any part thereof, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

289. Whoever knowlingly or negligently omits to take such order with any animal in his possession as is sufficient to guard against any probable danger to human life, or any probable danger of grievous hurt from such animal, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

290. Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees.

291. Whoever repeats or continues a public nuisance, having been enjoined by any public servant who has lawful authority to issue such injunction not to repeat or continue such nuisance, shall be punished with simple imprisonment for a term which may extend to six months, or with fine, or with both.

CHAPTER XVI.—OF OFFENCES AFFECTING THE HUMAN BODY OF HURT

319. Whoever causes bodily pain, disease or infirmity to any person is said to cause hurt.

320. The following kinds of hurt only are designated as "grevious":—

First.—Emasculation.

Secondly.—Permanent privation of the sight of either eye.

Thirdly.—Permanent privation of the hearing of either ear.

Fourthly.—Privation of any member or joint.

Fifthly.—Destruction or permanent impairing of the powers of any member or joint.

Sixthly.—Permanent disfiguration of the head or face.

Seventhly.—Fracture or dislocation of a bone or tooth.

Eighthly.—Any hurt which endangers life or which causes the sufferer to be during the space of twenty days in severe bodily pain, or unable to follow his ordinary pursuits.

321. Whoever does any act with the intention of thereby causing hurt to any person, or with the knowledge that he is likely thereby to cause hurt to any person, and does thereby cause hurt to any person, is said "voluntarily to cause hurt".

322. Whoever voluntarily causes hurt, if the hurt which he intends to cause or knows himself to be likely to cause is grievous hurt, and if the hurt which he causes is grievous hurt, is said "voluntarily to cause grievous hurt".

Explanation.—A person is not said voluntarily to cause grievous hurt except when he both causes grievous hurt and intends or knows himself to be likely to cause grievous hurt. But he is said voluntarily to cause grievous hurt, if intending or knowing himself to be likely to cause grievous hurt of one kind, he actually causes grievous hurt of another kind.

Illustration

A, intending or knowing himself to be likely permanently to disfigure Z's face. gives Z a blow which does not permanently disfigure Z's face, but which causes Z to suffer severe bodily pain for the space of twenty days. A has voluntarily caused grievous hurt.

ACTS OF PARLIAMENT, 1974—GOVERNMENT OF INDIA

Be it enacted by Parliament in the Twenty-fifth Year of the Republic of India as follows:—

CHAPTER I

PRELIMINARY

1. (*1*) This Act may be called the Water (Prevention and Control of Pollution) Act, 1974.

(2) It applies in the first instance to the whole of the States of Assam, Bihar, Gujarat, Haryana, Himachal, Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Tripura and West Bengal and the Union territories; and it shall apply to such other State which adopts this Act by resolution passed in tehat behalf under clause (1) of article 252 of the Constitution.

(3) It shall come into force, at once in the States of Assam, Bihar, Gujarat, Haryana, Himachal, Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya, Pradesh, Rajasthan, Tripura and West Bengal and in the Union territories, and in any other State which adopts this Act under clause (1) of article 252 of the Constitution on the date of such adoption and any reference in this Act to the commencement of this Act shall, in relation to any State or Union territory, mean the date on which this Act comes into force in such State or Union territory.

2. In this Act, unless the context otherwise requires,—

(*a*) "Board" means the Central Board or a State Board;

(*b*) "Central Board" means the Central Board for the Prevention and Control of Water Pollution constituted under section 3;

(*c*) "member" means a member of a Board and includes the chairman thereof;

(*d*) "occupier" in relation to any factory or premises means the person who has control over the affairs of the factory or the premises and where the said affairs are entrusted to a managing agent, such agent shall be deemed to be the occupier of the factory or the premises;

(*e*) "pollution" means such contamination of water or such alteration of the physical chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly).

CHAPTER V

PREVENTION AND CONTROL OF WATER POLLUTION

19. (*1*) Notwithstanding anything contained in this Act, if the State Government, after consultation with, or on the recommendation of, the State Board, is of opinion that the provisions of this Act need not apply to the entire State, it

may, by notification in the Official Gazette, restrict the application of this Act to such area or areas as may be declared therein as water pollution, prevention and control area or areas and thereupon the provisions of this Act shall apply only to such area or areas.

(2) Each water pollution, prevention and control area may be declared either by reference to a map or by reference to the line of any watershed or the boundary of any district or partly by one method and partly by another.

(3) The State Government may, by notification in the Official Gazette,—

(a) alter any water pollution, prevention and control area whether by way of extension or reduction; or

(b) define a new water pollution, prevention and control area in which may be merged one or more water pollution, prevention and control areas, or any part or parts thereof.

20. (1) For the purpose of enabling a State Board to perform the functions conferred on it by or under this Act, the State Board or any officer empowered by it in that behalf, may make surveys of any area and gauge and keep records of the flow or volume and other characteristics of any stream or well in such area, and may take steps for the measurement and recording of the rainfall in such area or any part thereof and for the installation and maintenance for those purposes of gauges or other apparatus and works connected therewith, and carry out stream surveys and may take such other steps as may be necessary in order to obtain any information required for the purposes aforesaid.

(2) A State Board may give directions requiring any person who in its opinion is abstracting water from any such stream or well in the area in quantities which are substantial in relation to the flow of volume of that stream or well or is discharging sewage or trade effluent into any such stream or well, to give such information as to the abstraction or the discharge at such times and in such form as may be specified in the directions.

(3) Without prejudice to the provisions of sub-section (2), a State Board may, with a view to preventing or controlling pollution of water, give directions requiring any person in charge of any establishment where any industry or trade is carried on, to furnish to it information regarding the construction, installation or operation of such establishment or of any disposal system or of any extension or addition thereto in such establishment and such other particulars as may be prescribed.

CHAPTER VII

PENALTIES AND PROCEDURE

41. (1) Whoever fails to comply with any direction given under sub-section (2) or sub-section (3) of section 20 within such time as may be specified in the direction or fails to comply with any orders issued under clause (c) of sub-section (1) or section 32 shall, on conviction, be punishable with imprisonment for a term which may extend to three months or with fine which may extend to five thousand rupees or which both and in case the failure continues, with an additional fine which may extend to one thousand rupees for every day during which such failure continues after the conviction for the first such failure.

(2) Whoever fails to comply with any direction issued by a court under sub-section (2) of section 33 shall, on conviction, be punishable with imprisonment for a term which may extend to three months or with fine which may extend to five thousand rupees or with both and in case the failure continues, with an additional fine which may extend to one thousand rupees for every day during which such failure continues after the conviction for the first such failure.

42. (1) Whoever—

(a) destroys, pulls down, removes, injures or defaces any pillar, post or stake fixed in the ground or any notice or other matter put up, inscribed or placed, by or under the authority of the Board, or

(b) obstructs any person acting under the orders or directions of the Board from exercising his powers and performing his functions under this Act, or

(c) damages any works or property belonging to the Board, or

(d) fails to furnish to any officer or other employee of the Board any information required by him for the purpose of this Act, or

(e) fails to intimate the occurrence of any accident or other unforeseen act or event under section 31 to the Board and other authorities or agencies as required by that section, or

(f) in giving any information which he is required to give under this Act, knowingly or wilfully makes a statement which is false in any material particular, or

(g) for the purpose of obtaining any consent under section 25 or section 26, knowingly or wilfully makes a statement which is false in any material particular,

shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to one thousand rupees or with both.

(2) Where for the grant of a consent in pursuance of the provisions of section 25 or section 26 the use of a meter or gauge or other measure or monitoring device is required and such device is used for the purposes of those provisions, any person who knowingly or wilfully alters or interferes with that device so as to prevent it from monitoring or measuring correctly shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to one thousand rupees or with both.

43. Whoever contravenes the provisions of section 24 shall be punishable with imprisonment for a term which shall not be less than six months but which may extend to six years and with fine.

44. Whoever contravenes the provisions of section 25 or section 26 shall be punishable with imprisonment for a term which shall not be less than six months but which may extend to six years and with fine.

45. If any person who has been convicted of any offence under section 24 or section 25 or section 26 is again found guilty of an offence involving a contravention of the same provision, he shall, on the second and on every subsequent conviction, be punishable with imprisonment for a term which shall not be less than one year but which may extend to seven years and with fine:

Provided that for the purpose of this section no cognizance shall be taken of any conviction made more than two years before the commission of the offence which is being punished.

46. If any person convicted of an offence under this Act commits a like offence afterwards it shall be lawful for the court before which the second or subsequent conviction takes place to cause the offender's name and place of residence, the offence and the penalty imposed to be published at the offender's expense in such newspapers or in such other manner as the court may direct and the expenses of such publication shall be deemed to be part of the cost attending the conviction and shall be recoverable in the same manner as a fine.

47. (1) Where an offence under this Act has been committed by a company, every person who at the time the offence was committed was in charge of, and was responsible to the company for the conduct of, the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation

For the purposes of this section—

(a) "company" means any body corporate, and includes a firm or other association of individuals; and

(b) "director" in relation to a firm means a partner in the firm.

48. Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence was commited without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

49. (1) No court shall take cognizance of any offence under this Act except on a complaint made by, or with the previous sanction in wrtiing of the State

Board, and no court inferior to that of a Presidency Magistrate or a Magistrate of the first class shall try any offence punishable under this Act.

(2) Notwithstanding anything contained in section 32 of the Code of Criminal Procedure, 1898, it shall be lawful for any Magistrate of the first class or for any Presidency Magistrate to pass a sentence of imprisonment for a term exceeding two years or of fine exceeding two thousand rupees on any person convicted of an offence punishable under this Act.

50. All members, officers and servants of a Board when acting or purporting to act in pursuance of any of the provisions of this Act and the rules made thereunder shall be deemed to be public servants within the meaning of section 21 of the Indian Penal Code.

GOVERNMENT OF INDIA, MINISTRY OF LAW—ACTS OF PARLIAMENT, 1952

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CHAPTER IV

MINING OPERATIONS AND MANAGEMENT OF MINES

16. *Notice to be given of mining operations.*—(*1*) The owner, agent or manager of a mine shall, before the commencement of any mining operation, give to the Chief Inspector, the Director, Indian Bureau of Mines and the district magistrate of the district in which the mine is situated, notice in writing in such form and containing such particulars relating to the mine as may be prescribed.

(2) Any notice given under sub-section (*1*) shall be so given as to reach the persons concerned at least one month before the commencement of any mining operation.

17. *Managers.*—Save as may be otherwise prescribed every mine shall be under one manager who shall have the prescribed qualifications and shall be responsible for the control, management and direction of the mine, and the owner or agent of every mine shall appoint himself or some other person, having such qualifications, to be such manager.

18. *Duties and responsibilities of owners, agents and managers.*—(*1*) The owner, agent and manager of every mine shall be responsible that all operations carried on in connection therewith are conducted in accordance with the provisions of this Act and of the regulations, rules and bye-laws and of any orders made thereunder.

(2) In the event of any contravention of any such provisions by any person whosoever, the owner, agent and manager of the mine shall each be deemed also to be guilty of such contravention unless he proves that he had taken all reasonable means, by publishing and to the best of his power enforcing those provisions, to prevent such contravention:

Provided that the owner or agent shall not be so deemed if he proves—

(*a*) that he was not in the habit of taking, and did not in respect of the matter in question take, any part in the management of the mine; and

(*b*) that he had made all the financial and other provisions necessary to enable the manager to carry out his duties; and

(*c*) that the offence was committed without his knowledge, consent or connivance.

(*3*) Save as hereinbefore provided, it shall not be a defence in any proceedings brought against an owner or agent of a mine under this section that a manager of the mine has been appointed in accordance with the provisions of this Act.

* * * * * * *

(2) Without prejudice to the generality of the provisions contained in sub-section (*1*), the Chief Inspector or the Inspector may, by order in writing addressed to the owner, agent or manager of a mine, prohibit the extraction or reduction of pillars in any part of the mine if, in his opinion, such operation is likely to cause the crushing of pillars or the premature collapse of any part of the workings or otherwise endanger the mine, or if, in his opinion, adequate provision against the outbreak of fire has not been made by providing for the sealing off and isolation of the part of the mine in which such operation is contemplated and for restricting the area that might be affected by a fire, and the

provisions of sub-sections (*4*), (*5*), (*6*) and (*7*), shall apply to an order made under this sub-section as they apply to an order made under sub-section (*3*).

(*3*) If the Chief Inspector or an Inspector authorised in this behalf by general or special order in writing by the Chief Inspector is of opinion that there is urgent and immediate danger to the life or safety of any person employed in any mine or part thereof, he may, by an order in writing containing a statement of the grounds of his opinion, prohibit, until the danger is removed, the employment in or about the mine or any part thereof of any person whose employment is not in his opinion reasonably necessary for the purpose of removing the danger.

(*4*) Where an order has been made under sub-section (*3*) by an Inspector, the owner, agent or manager of the mine may, within ten days after the receipt of the order, appeal against the same to the Chief Inspector who may confirm, modify or cancel the order.

(*5*) The Chief Inspector or the Inspector making a requisition under sub-section (*1*) or an order under sub-section (*3*), and the Chief Inspector making an order (other than an order of cancellation) in appeal under sub-section (*4*) shall forthwith report the same to the Central Government.

(*6*) If the owner, agent or manager of the mine objects to a requisition made under sub-section (*1*) or to an order made by the Chief Inspector under sub-section (*3*), or sub-section (*4*), he may, within twenty days after the receipt of the notice containing the requisition or of the order or after the date of the decision of the appeal, as the case may be, send his objection in writing stating the grounds thereof, to the Central Government which shall refer the same to a committee.

(*7*) Every requisition made under sub-section (*1*), or order made under sub-section (*3*), or sub-section (*4*) to which objection is made under sub-section (*6*), shall be complied with pending the receipt at the mine of the decision of the Committee:

Provided that the Committee may, on the application of the owner, agent or manager, suspend the operation of a requisition under sub-section (*1*), pending its decision on the objection.

(*8*) Nothing in this section shall affect the powers of a magistrate under section 144 of the Code of Criminal Procedure, 1898 (Act V of 1898).

23. *Notice to be given of accidents.*—(*1*) Where there occurs in or about a mine—

(*a*) an accident causing loss of life or serious bodily injury, or

(*b*) an accidental explosion, ignition, spontaneous heating, outbreak of fire or irruption of water, or

(*c*) an accidental breakage of ropes, chains or other gear by which men are lowered or raised, or

(*d*) an accidental overwinding of cages, while men are being lowered or raised, or

(*e*) a premature collapse of any part of the workings,

the owner, agent or manager of the mine shall give notice of the occurrence to such authority, in such form and within such time as may be prescribed, and he shall simultaneously post one copy of the notice on a special notice board in the prescribed manner at a place where it may be inspected by trade union officials and shall ensure that the notice is kept on the board for not less than two months from the date of such posting.

(2) Where a notice given under sub-section (*1*) relates to an accident causing loss of life, the authority shall make an inquiry into the occurrence within two months of the receipt of the notice and, if the authority is not the Inspector, he shall cause the Inspector to make an inquiry within the said period.

(*3*) The Central Government may, by notification in the Official Gazette, direct that accidents other than those specified in sub-section (*1*), which cause bodily injury resulting in the enforced absence from work of the person injured for a period exceeding forty-eight hours shall be entered in a register in the prescribed form or shall be subject to the provisions of sub-section (*1*).

(*4*) A copy of the entries in the register referred to in sub-section (*3*) shall be sent by the owner, agent, or manager of the mine, within fourteen days after the 30th day of June and the 31st day of December in each year, to the Chief Inspector.

24. *Power of Government to appoint Court of inquiry in cases of accidents.*—(*1*) When any accident occurs in or about a mine causing loss of life or serious

bodily injury or when an accidental explosion, ignition, spontaneous heating, outbreak of fire, irruption of water, breakage of ropes, chains or other gear by which men are lowered or raised, or when an accidental overwinding of cages occurs in or about a mine while men are being lowered or raised, the Central Government may, if it is of opinion that a formal inquiry into the causes of and circumstances attending the accident ought to be held, appoint a competent person to hold such inquiry and may also appoint any person or persons possessing legal or special knowledge to act as assessor or assessors in holding the inquiry.

(2) The person appointed to hold any such inquiry shall have all the powers of a civil court under the Code of Civil Procedure, 1908 (Act V of 1908), for the purpose of enforcing the attendance of witnesses and compelling the production of documents and material objects; and every person required by such person as aforesaid to furnish any information shall be deemed to be legally bound to do so within the meaning of section 176 of the Indian Penal Code (Act XLV of 1860).

(3) Any person holding an inquiry under this section may exercise such of the powers of an Inspector under this Act as he may think it necessary or expedient to exercise for the purposes of the inquiry.

(4) The person holding an inquiry under this section shall make a report to the Central Government stating the causes of the accident and its circumstances, and adding any observations which he or any of the assessors may think fit to make.

25. *Notice of certain diseases.*—(1) Where any person employed in a mine contracts any disease notified by the Central Government in the Official Gazette as a disease connected with mining operations, the owner, agent or manager of the mine, as the case may be, shall send notice thereof to the Chief Inspector and to such other authorities, in such form and within such time as may be prescribed.

* * * * * * *

65. *Use of false certificates of fitness.*—Whoever knowingly uses or attempts to use as a certificate of fitness granted to himself under section 40 a certificate granted to another person under that section, or, having been granted a certificate of fitness to himself under that section, knowingly allows it to be used, or allows an attempt to use it to be made by another person, shall be punishable with imprisonment for a term which may extend to one month, or with fine which may extend to fifty rupees, or with both.

66. *Omission to furnish plans, etc.*—Any person who, without reasonable excuse the burden of proving which shall lie upon him, omits to make or furnish in the prescribed form or manner or at or within the prescribed time any plan, return, notice, register, record or report required by or under this Act to be made or furnished shall be punishable with fine which may extend to two hundred rupees.

67. *Contravention of provisions regarding employment of labour.*—Whoever, save as permitted by section 38, contravenes any provision of this Act or of any regulation, rule or bye-law or of any order made thereunder prohibiting, restricting or regulating the employment or presence of persons in or about a mine shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both, and, if the contravention is continued after conviction, with a further fine which may extend to seventy-five rupees for each day on which the contravention is so continued.

68. *Penalty for double employment of young persons.*—If a child or an adolescent is employed in a mine on any day on which he has already been employed in another mine, his parent or guardian or the person who has the custody of such child or adolescent or who obtains any direct benefit from his wages shall be punishable with fine which may extend to fifty rupees, unless it appears to the court that the child or adolescent was so employed without the consent or connivance of such parent, guardian or person.

69. *Failure to appoint manager.*—Whoever in contravention of the provisions of section 17, fails to appoint a manager shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both, and, if the contravention is continued after conviction, with a further fine which may extend to one hundred rupees for each day on which the contravention is so continued.

70. *Notice of accidents.*—(1) Whoever in contravention of the provision of sub-section (1) of section 23 fails to give notice of any accidental occurrence or to

post a copy of the notice on the special notice board referred to in that sub-section and to keep it there for the period specified shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both.

(2) Whoever in contravention of a direction made by the Central Government under sub-section (3) of section 23 fails to record in the prescribed register or to give notice of any accidental occurrence shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both.

71. *Owner, etc., to report to Chief Inspector in certain cases.*—Where the owner, agent or manager of a mine, as the case may be, has taken proceedings under this Act against any person employed in or about a mine in respect of an offense under this Act, he shall within twenty-one days from the date of the judgment or order of the court report the result thereof to the Chief Inspector.

72. *Obligation of persons employed in a mine.*—No person employed in a mine shall—

(a) wilfully interfere with or misuse any appliance, convenience or other thing provided in a mine for the purpose of securing the health, safety or welfare of the persons employed therein;

(b) wilfully and without reasonable cause do anything likely to endanger himself or others;

(c) wilfully neglect to make use of any appliance or other thing provided in the mine for the purpose of securing the health or safety of the persons employed therein.

73. *Disobedience of orders.*—Whoever contravenes any provision of this Act or of any regulation, rule or bye-law or of any order made thereunder for the contravention of which no penalty is hereinbefore provided shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to one thousand rupees, or with both, and, if the contravention is continued after conviction, with a further fine which may extend to one hundred rupees for each day on which the contravention is so continued.

74. *Contravention of law with dangerous results.*—(1) Notwithstanding anything hereinbefore contained, whoever contravenes any provision of this Act or of any regulation, rule or bye-law or of any order made thereunder, shall be punishable,—

(a) if such contravention results in loss of life, with imprisonment which may extend to one year, or with fine which may extend to five thousands rupees, or with both; or

(b) if such contravention results in serious bodily injury, with imprisonment which may extend to six months, or with fine which may extend to two thousand rupees, or with both; or

(c) if such contravention otherwise causes injury or danger to persons employed in the mine or other persons in or about the mine, with imprisonment which may extend to one month, or with fine which may extend to five hundred rupees, or with both.

(2) Where a person having been convicted under this section is again convicted thereunder he shall be punishable with double the punishment provided by sub-section (1).

(3) Any court imposing, or confirming in appeal, revision or otherwise, a sentence of fine passed under this section may, when passing judgment, order the whole or any part of the fine recovered to be paid as compensation to the person injured, or, in the case of his death, to his legal representative:

Provided that if the fine is imposed in a case which is subject to appeal, no such payment shall be made before the period allowed for presenting the appeal has elapsed, or, if an appeal has been presented, before the decision of the appeal.

75. *Prosecution of owner, agent or manager.*—No prosecution shall be instituted against any owner, agent or manager for any offence under this Act except at the instance of the Chief Inspector or of the district magistrate or of an Inspector authorised in this behalf by general or special order in writing by the Chief Inspector:

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CHAPTER IV—MINING OPERATIONS AND MANAGEMENT OF MINES

14. The owner, agent or manager of a mine shall, in the case of an existing mine within one month from the commencement of this Act, or, in the case of a new mine, within three months after the commencement of mining operations, give to the District Magistrate of the district in which the mine is situated notice in writing in such form and containing such particulars relating to the mine as may be prescribed.

15.—(1) Save as may be otherwise prescribed, every mine shall be under one manager who shall have the prescribed qualifications and shall be responsible for the control, management and direction of the mine, and the owner or agent of every mine shall appoint himself or some other person, having such qualifications, to be such manager.

(2) If any mine is worked without there being a manager for the mine as required by sub-section (1), the owner and agent shall each be deemed to have contravened the provisions of this section.

16.—(1) The owner, agent and manager of every mine shall be responsible that all operations carried on in connection therewith are conducted in accordance with the provisions of this Act and of the regulations, rules and bye-laws and of any orders made thereunder.

(2) In the event of any contravention of any such provisions by any person whomsoever, the owner, agent and manager of the mine shall each be deemed also to be guilty of such contravention unless he proves that he had taken all reasonable means, by publishing and to the best of his power enforcing those provisions, to prevent such contravention:

Provided that the owner or agent shall not be so deemed if he proves—

(*a*) that he was not in the habit of taking, and did not in respect of the matter in question take, any part in the management of the mine; and

(*b*) that he had made all the financial and other provisions necessary to enable the manager to carry out his duties; and

(*c*) that the offence was committed without his knowledge, consent or connivance.

(3) Save as hereinbefore provided, it shall not be a defence in any proceedings brought against an owner or agent of a mine under this section that a manager of the mine has been appointed in accordance with the provisions of this Act.

CHAPTER V—PROVISIONS AS TO HEALTH AND SAFETY

17. There shall be provided and maintained for every mine latrine and urinal accommodation of such kind and on such scale, and such supply of water fit for drinking, as may be prescribed.

18. At every mine in respect of which the [appropriate Government] may, by notification in the [official Gazette], declare this section to apply, such supply of ambulances or stretchers, and of splints, bandages and other medical requirements, as may be prescribed, shall be kept ready at hand in a convenient place and in good and serviceable order.

19.—(1) If, in any respect which is not provided against by any express provision of this Act or of the regulations, rules or bye-laws or of any orders made thereunder, it appears to the Chief Inspector or the Inspector that any mine, or any part thereof or any matter, thing or practice in or connected with the mine, or with the control, management or direction thereof, is dangerous to human life or safety, or defective so as to threaten, or tend to, the bodily injury of any person, he may give notice in writing thereof to the owner, agent or manager of the mine, and shall state in the notice the particulars in which he considers the mine, or part thereof, or the matter, thing or practice, to be dangerous or defective and require the same to be remedied within such time as he may specify in the notice.

[(1A) Without prejudice to the generality of the provisions contained in sub-section (1), the Chief Inspector or the Inspector may, in any area to which the [appropriate Government] may by notification in the [official Gazette] declare that this sub-section applies, by order in writing addressed to the owner, agent has been so made.

(5) If the owner, agent or manager of the mine objects to a requisition made under sub-section (1) or to an order made by the Chief Inspector under sub-

section (2), or sub-section (3), he may, within twenty days after the receipt of the notice containing the requisition or of the order or after the date of the decision of the appeal, as the case may be, send his objection in writing, stating the grounds thereof, to the [appropriate Government], which shall refer the same to a Committee.

(6) Every requisition made under sub-section (1), or order made under sub-section (2), or sub-section (3) to which objection is made under sub-section (5), shall be complied with pending the receipt at the mine of the decision of the Committee:

Provided that the Committee may, on the application of the owner, agent or manager, suspend the operation of a requisition under sub-section (1) pending its decision on the objection.

(7) Nothing in this section shall affect the powers of a Magistrate under section 144 of the Code of Criminal Procedure, 1898.

20.—[(1)] When any accident occurs in or about a mine causing loss of life or serious bodily injury, or when an accidental explosion, ignition, outbreak of fire or irruption of water occurs in or about a mine, the owner, agent or manager of the mine shall give such notice of the occurrence to such authorities, and in such form, and within such time, as may be prescribed.

[(2) The appropriate Government] may, by notification in the [official Gazette], direct that accidents other than those specified in sub-section (1) which cause bodily injury resulting in the enforced absence from work of the person injured for a period exceeding forty-eight hours, shall be entered in a register in the prescribed form or shall be subject to the provisions of sub-section (1).

(3) A copy of the entries in the register referred to in sub-section (2) shall be sent by the owner, agent, or manager of the mine, within fourteen days after the 30th day of June and the 31st day of December in each year, to the Chief Inspector.]

21.—(1) When any accidental explosion, ignition, outbreak of fire or irruption of water or other accident has occurred in or about any mine, the [appropriate Government], if it is of opinion that a formal inquiry into the causes of, and circumstances attending, the accident ought to be held, may appoint a competent person to hold such inquiry, and may also appoint any person or persons possessing legal or special knowledge to act as assessor or assessors in holding the inquiry.

(2) The person appointed to hold any such inquiry shall have all the powers of a Civil Court under the Code of Civil Procedure, 1908, for the purpose of enforcing the attendance of witnesses and compelling the production of documents and material objects; and every person required by such person as aforesaid to furnish any information shall be deemed to be legally bound to do so within the meaning of section 176 of the Pakistan Penal Code.

(3) Any person holding an inquiry under this section may exercise such of the powers of an Inspector under this Act as he may think it necessary or expedient to exercise for the purposes of the inquiry.

(4) The person holding an inquiry under this section shall make a report to the [appropriate Government] stating the causes of the accident and its circumstances, and adding any observations which he or any of the assessors may think fit to make.

22. The [appropriate Government] may cause any report submitted by a Committee under section 11 [and shall cause every report submitted] by a court of inquiry under section 21 to be published at such time and in such manner as it may think fit.

38.—[(1)] Whoever, in contravention of the provisions [of sub-section (1)] of section 20, fails to give notice of any accidental occurrence shall, if the occurrence results in serious bodily injury, be punishable with fine which may extend to five hundred rupees, or, if the occurrence results in loss of life, be punishable with imprisonment which may extend to three months or with fine which may extend to five hundred rupees, or with both.

[(2) Whoever in contravention of a direction made by the [appropriate Government] under sub-section (2) of section 20 fails to record in the prescribed register or to give notice of any accidental occurrence shall be punishable with fine which may extend to five hundred rupees.]

39. Whoever contravenes any provision of this Act or of any regulation, rule or bye-law or of any order made thereunder for the contravention of which no penalty is hereinbefore provided shall be punishable with fine which may extend

to one thousand rupees, and, in the case of a continuing contravention, with a further fine which may extend to one hundred rupees for every day on which the offender is proved to have persisted in the contravention after the date of the first conviction.

40.—(1) Notwithstanding anything hereinbefore contained, whoever contravenes any provision of this Act or of any regulation, rule or bye-law or of any order made thereunder, shall be punishable, if such contravention results in loss of life, with imprisonment which may extend to one year, or with fine which may extend to two thousand rupees, or with both; or, if such contravention results in serious bodily injury, with imprisonment which may extend to six months, or with fine which may extend to one thousand rupees, or with both; or, if such contravention otherwise causes injury or danger to workers or other persons in or about the mine, with imprisonment which may extend to one month, or with fine which may extend to five hundred rupees, or with both.

12. *Amendment of section 20, Act IV of 1923.*—In the said Act, in section 20, for subsection (1) the following shall be substituted, namely:—

"(1) Whenever there occurs in or about a mine—

(*a*) an accident causing loss of life or serious bodily injury, or

(*b*) an accidental explosion, ignition, spontaneous heating, outbreak of fire or eruption or inrush of water or other liquid matter, or

(*c*) an influx of inflammable or noxious gases, or

(*d*) a breakage of ropes, chains or other gear by which persons or materials are lowered or raised in a shaft or an incline, or

(*e*) an overwinding of cages or other means of conveyance in any shaft while persons or materials are being lowered or raised, or

(*f*) an electric shock or burn caused by contact with a conductor carrying more than 25 volts, or

(*g*) any other accident that may be prescribed,

the owner, agent or manager of the mine shall give notice of the occurrence to such authorities, in such form and within such time as may be prescribed.

(1–A) Where a notice given under subsection (1) relates to an accident causing loss of life, the Inspector shall make, or, where the authority receiving the notice is one other than the Inspector, that authority shall cause the Inspector to make, an inquiry into the occurrence as early as possible on receipt of such notice or on information received otherwise.

(1–B) When an accident causing loss of life occurs, the place of the accident shall not be disturbed or tampered with for three clear days from the date of such accident unless the Inspector has earlier inspected it or given intimation that it is not proposed to make an inquiry:

Provided that the place of accident may be disturbed if it is necessary for securing the safety of the mine or the persons employed therein, subject to the following conditions—

(*a*) the decision that it is necessary to disturb the place must be taken by the manager;

(*b*) the disturbance must not prejudice subsequent investigation;

(*c*) the workers' representative must have reasonable opportunity to inspect the place if he wishes;

(*d*) an accurate plan must be made, and copies thereof made available to the Inspector and the workers' representative; and

(*e*) everything which is relevant to the accident must be preserved, as far as possible, in the condition in which it was at the time of the accident.".

13. *Insertion of section 20-A, Act IV of 1923.*—In the said Act, after section 20 amended as aforesaid, the following new section 20-A shall be inserted, namely:—

"20-A. *Notice of occupational diseases.*—(1) Where any person employed in a mine contracts or is believed to have contracted any disease notified by the appropriate Government in the official Gazette as the occupational disease peculiar to any mining operation, the owner, agent or manager of the mine, as the case may be, shall send notice thereof to the Chief Inspector and to such other authorities, in such form and within such time as may be prescribed.

(2) The appropriate Government may, by order, appoint such qualified medical practitioners on such terms and conditions as it thinks fit to be certifying doctors for the purpose of this section within such local limits as it may specify in the order.

(3) If the Chief Inspector or an Inspector has reason to believe that any person working in a mine has contracted a disease notified under subsection (1), he may refer that person to the certifying doctor for his opinion.

(4) If any qualified medical practitioner attends on a person who is or has been employed in a mine and who is believed by the medical practitioner to be suffering from any disease notified under subsection (1), the medical practitioner shall without delay send a report in writing to the Chief Inspector stating—

(*a*) the name and address of the patient;

(*b*) the disease from which the patient is or is believed to be suffering; and

(*c*) the name and address of the mine in which the patient is or was last employed.

(5) Where the report under subsection (4) is confirmed to the satisfaction of the Chief Inspector by the certificate of a certifying doctor that the person is suffering from a disease notified under subsection (1), the Chief Inspector shall pay to the medical practitioner such fee as may be prescribed, and the fee so paid shall be recoverable as an arrear of land revenue from the owner, agent or manager of the mine in which the person contracted the disease.

ITALY[1]

A search of Italian legislation did not reveal any comparable affirmative duty to disclose criminal negligence violations of health and environmental hazards. Criminal penalties, however, are imposed for specific violations of laws governing public safety as well as health and the environment.

Protective measures in these areas include the following provisions of the Criminal Code: article 347 on Intentional Removal or Omission of Precautions Against Industrial Accidents; article 442 on Commerce in Simulated or Adulterated Foodstuffs; article 443 on Commerce in or Supply of Tainted Medicine; article 444 on Commerce in Noxious Foodstuffs; article 445 on Supplying Medicines in a Manner Dangerous to Public Health; article 449 on Negligent Crimes Involving Damage; article 450 on Negligent Crimes of Danger; article 451 on Negligent Omission of Precautions or Safeguards Against Industrial Accidents or Disasters; article 452 on Negligent Crimes Against Public Health; article 733 on Damage to the Archeological, Historical or Artistic Heritage of the Nation; and article 734 on Destroying or Disfiguring Natural Beauty.[2]

JAPAN[1]

The Japanese legislation most comparable to H.R. 4973 and Sections 1617 and 1853 of S. 1722 is the Law for the Punishment of Crimes Against Human Health Arising from Pollution (hereinafter referred to as the Pollution Crimes Law.)[2] This law was enacted on December 25, 1970, as one of the fourteen pollution control measures passed by the 64th Extraordinary Diet Session; it came into force on July 1, 1971. In view of Japan's ever increasing problems with pollution, the Diet thought it necessary to enact this special criminal statute to punish individuals and corporations responsible for discharging harmful substances that adversely affect human health. Furthermore, this law made it possible to punish acts which were otherwise not punishable under the present Penal Code.[3] Prior to the enactment of the Pollution Crimes Law, the most applicable provision was Article 211 of the Penal Code, which provides that—

> [a] person who fails to use such care as required in the conduct of his profession or occupation and thereby kills or injures another shall be punished by imprisonment for not more than three years or a fine of not more than one thousand yen. The same shall apply to a person who by gross negligence injures or causes the death of another.

The differences between the Pollution Crimes Law and Article 211 of the Penal Code need to be underlined. Under Article 211, the acts of negligence described are punishable only when they have resulted in death or injury, and only natural persons may be punished. Under the Pollution Crimes Law, in contrast, the acts

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[1] Prepared by Dr. Vittorfranco S. Pisano, Senior Legal Specialist, European Law Division, Law Library, Library of Congress, February 1980.

[2] E. D. Wise, et al., trans., The Italian Penal Code (1978).

[1] Prepared by Dr. Sung Yoon Cho, Assistant to the Chief, Far Easten Law Division, Law Library, Library of Congress, Washington, D.C., February 1980.

[2] Law No. 142, Dec. 25, 1970; came into force on July 1, 1971.

[3] Law No. 45, Apr. 24, 1907, as last amended by Law No. 61, May 21, 1968.

described are punishable at the point at which they only endanger human life or health, and juridical persons as well as natural persons are to be punished. The provision that corporations as well as individuals are to be punished is stated explicitly in Article 4 of the Pollution Crimes Law.

It should be noted that, unlike H.R. 4973, neither the Pollution Crimes Law nor the Penal Code contains provisions creating an affirmative duty to disclose a serious danger posed by products or practices of the business.

THE POLLUTION CRIMES LAW

The Pollution Crimes Law consists of seven articles: purpose, crime with intent, crime by negligence, concurrent punishment, presumption, statute of limitations, and jurisdiction. The aim of this law is to contribute, together with control measures based on other laws and regulations designed to prevent pollution, to the prevention of environmental pollution adversely affecting human health by punishing acts carried out in the conduct of business activities which cause such pollution (Article 1).

Under this law, punishment is limited to cases involving danger to human health resulting from industrial pollution. Therefore, pollution causing danger to the life environment only is not subject to punishment.

Any natural or juridical person is subject to punishment who intentionally or by negligence endangers the lives or health of the public by discharging in the conduct of activities of industrial plants or places of business harmful substances adversely affecting human health. Any natural or juridical person who has caused such danger intentionally shall be punished by penal servitude or not more than three years or a fine of not more than 3 million yen (Article 2). Any natural or juridical person who has caused such danger by negligence shall be punished by penal servitude or imprisonment of not more than two years or a fine of not more than 2 million yen (Article 3).

Acts which endanger the lives or health of the public are punishable under this law even before the victims are injured or dead. In the original bill drafted by the Ministry of Justice, it was proposed to include the term "acts which it is feared endanger human health",[4] but this term was deleted on the grounds that such acts are too broad to be subject to criminal punishment and that such acts may be better handled by the present administrative sanctions provided for in the Air Pollution Law[5] and the Water Pollution Law.[6]

The term "public" in the law means many and unspecified persons. Unlike Article 211 of the Penal Code, which deal with actual injury of an individual, the Pollution Crimes Law governs not only the situation in which an individual is actually injured, but also the situation in which such injury is likely to spread to many, unspecified persons who will suffer thereby. Under the Pollution Crime Law, there is no burden of proving the causal connection between the defendant's negligence and the injury suffered by each victim.[7] This is one of the most significant features of the law.

The term "harmful substances adversely affecting human health" within the meaning of this law includes air and water pollutants defined by the Air Pollution Law and the Water Pollution Law, including those pollutants which become hazardous when they accumulate in human bodies. Noise, vibration, soil subsidence and poisoning caused by food or pharmaceutical products are not considered as harmful substances and therefore are not subject to this law. Cases involving certain offensive odors or soil pollution may be subject to punishment.[8]

There is a presumption clause providing that in cases where a person has discharged harmful substances in the conduct of activities of industrial plants or places of business to such an extent that the lives or health of the public are endangered by that particular discharge and where the lives or health of the public are already being endangered by the presence in the area of the same kind of substance as that discharged in the case first described, it shall be presumed that the latter endangerment has been caused by the substances discharged by the person first mentioned (Article 5). Under certain circumstances, a particular danger is presumed to have been caused by the entrepreneur unless he proves that such danger has not been caused by harmful substances discharged by him.

[4] Hiroshi Maeda, "Kōgaizai no shinsetsu" [Creation of New Pollution Crimes], "Toki no hōrei," No. 740 (Feb. 13, 1971), p. 9.
[5] Law No. 97, June 10, 1968, as last amended by Law No. 65, June 1, 1974.
[6] Law No. 138, Dec. 25, 1970, as last amended by Law No. 68, June 13, 1978.
[7] Hideo Fujiki, "Kōgai hanzai" [Pollution Crimes], Tokyo, Tokyo Daigaku Shuppankai, 1975, p. 18.
[8] Ibid., p. 24.

SURVEY OF CASES VIOLATING THE POLLUTION CRIMES LAW

For a five-year period from July 1, 1971, to June 30, 1976, the Public Prosecutor's Office throughout the country received 36 complaints in connection with violations of the Pollution Crimes Law. Included in these complaints were a case involving the gushing of hydrogen sulfide from a water reservoir tank due to malfunction of its drainage and disposal facilities and a case involving the discharge of polluted water containing hexa-chrome into a water main. The relatively small number of reported violations was attributable to the fact that the Pollution Crimes Law controlled only acts of discharging harmful substances and the fact that the Law was not retroactively applicable to acts committed before its enforcement on July 1, 1971.[9]

Out of the 36 complaints, only 5 cases were prosecuted and tried. Included among those prosecuted and tried were the Yokkaichi Chemical Factory case, which involved the emission of large amounts of liquid chlorine into the atmosphere in April 1974 as a result of errors in operating factory equipment, and the Osaka Ironwork Factory case, which involved injury to local residents due to the emission of chlorine gas into the atmosphere in March 1976 as a result of the mishandling of an operational order.[10]

COURT CASES TRIED UNDER ARTICLE 211 OF THE PENAL CODE

The Kumamoto Minamata Disease Case

This is the most celebrated Japanese pollution case, more familiarly known as the Minamata Mercury Poisoning Pollution Case.[11] Since the alleged pollution started in 1956, this case was tried under Article 211 of the Penal Code instead of under the provisions of the Pollution Crimes Law.

In this case, 1,725 local residents sustained physical or mental injuries as a result of eating fish contaminated with mercury; 206 had died as of March 1979.[12] In 1969 one hundred thirty-eight plaintiffs, which included those under treatment and relatives of deceased victims, brought a civil suit against Chisso Corporation, which the suit held responsible for the pollution, and won a total compensation of over 900 million yen in a 1973 ruling. Not satisfied with the civil suit, some victims lodged a complaint against Chisso Corporation in January 1975 demanding that Chisso executives be subject to prosecution under the Penal Code because of the mercury poisoning.

Acting on this complaint, the Kumamoto District Public Prosecutor's Office formally indicted Kiichi Yoshioka, former president of Chisso Corporation, and Eiichi Nishida, former superintendent of the firm's chemical plant in Minamata, Kumamoto Prefecture, where the poisoning had taken place.

In the first judicial judgment ever handed down in Japan concerning criminal responsibility in the management of a company that had caused pollution, the Kumamoto District Court found both the former president and the former superintendent guilty of professional negligence under Article 211 of the Penal Code and sentenced both to two years' imprisonment to be served in the form of suspended sentences of three years.

During the two and one-half years of trial, the defense for the company argued that the defendants were exempt from criminal prosecution in that the statute of limitations had already expired at the time of the prosecution's formal action. The defense also contended that the alleged damage to fetuses was not punishable under the Penal Code since it regards fetuses as non-human.

In handing down the decision, the court pointed out that the charge of professional negligence could be applied to the defendants in the two of the seven cases in which the statute of limitations had not yet run out. The two victims in question died of poisoning in December 1971 and July 1973 respectively.

As for the controversial question of whether a fetus is human or not, the court sided with the prosecution and declared that in a premature stage a fetus has a function similar to that of a human being and that damage to a fetus in this stage would most likely result in its death in later stages of growth. The court

[9] Michio Satō, "Hito no kenkō ni kansuru kōgaihanzai no shobatsu ni kansuru hōritsu" [Law for the Punishment of Crimes Against Human Health Arising from Pollution], Kōgai kankei hōrei kaisetsushū, Tokyo, Gyōsei, 1979, p. 1584.
[10] Ibid.
[11] Decision of the Kumamoto District Court, Mar. 22, 1979; Hanrei jihō, No. 931 (Sept. 1, 1979), p. 6.
[12] Teruhiko Numano, "Chisso keiji hanketsu kigyo soshivitai sepininron" [Chisso Chminal Trial and Enterprise Responsibility], Jurisuto, No. 690 (May 15, 1979), p. 51.

ruled that the defendants were responsible for the death of Kosaku Kamimura, who died at the age of 12 in the summer of 1973, apparently as a result of mercury poisoning he contacted prior to his birth.

The defense further contended that it was impossible for the defendants to have foreseen that industrial waste containing mercury would result in Minamata Disease. The court ruled that even without an expert and scientific knowledge of mercury poisoning, the defendants could have foreseen that certain substances discharged from the firm's chemical plant would cause disease.

The court decision, however, did not clearly define the scope of the criminal responsibility of the company's top management. It simply said that the former president was in charge of the overall management of the company, supervised the former superintendent, and engaged in the operation of the said company; thus, his responsibilities included the prevention of the resulting danger. As for the former superintendent, the court said that he managed the company's business and engaged in the operation of the said company; thus, his responsibilities also included the prevention of the resulting danger.

The court decision pointed out that from May 1956 to July 1958, numerous findings had been issued by the Ministry of Health and Welfare and the Kumamoto Medical School research team to the effect that the mercury poisoning might be traceable to industrial waste only. Despite these findings, Chisso Corporation's Minamata Plant, the court said, had continuously dumped a sizable volume of industrial waste containing organic mercury into Minamata Bay between September 1958 and June 1960, and thus both defendants had failed to exercise the professional duty not to discharge further industrial waste after July 1958.

Most scholars were in favor of the court decision. For example, Professor Numano states that under the traditional negligence theory the court would have punished only the person who directly operated the plant's equipment or his immediate supervisor, the latter for a failure to exercise his supervision over the operator.[13]

In contrast, Professor Numano writes, in the court decision the criminal responsibility of the president and superintendent of the plant was based on the premises that Chisso Corporation was one integral organization, that the release of industrial waste containing mercury poisoning was the act of such organization as a whole, that such act was caused by negligence in observing the operational standards of the company, and that the act of discharging industrial waste was to be regarded as having been carried out by the decision of top management figures. In accordance with this new negligence theory, the top management figures were held directly liable for the discharge of the pollution.[14]

The Morinaga Powdered Milk Case and the Kanemi Rice Oil Case

Prior to the Kumamoto Minamata Disease Case, there were two food poisoning cases tried under the Penal Code in which individual supervisors were held liable.

The Morinaga Powdered Milk Case involved the poisoning of about 12,000 babies by arsenic-polluted powdered milk; 130 of the babies died. The case was first tried by the Tokushima District Court in 1955; in this first trial, the court acquitted both defendants of the charge. The Takamatsu High Court disagreed and ordered a retrial of the case in 1966, and the Supreme Court upheld its order.

In the retrial of the Morinaga Powdered Milk Case, Takao Koyama, former production section chief of Tokushima Factory of the Morinaga Powdered Milk Company, was found guilty of professional negligence in violation of Article 211 of the Penal Code and was sentenced to 3 years' imprisonment by the Tokushima District Court on November 28, 1973.[15] However, Takashi Oka, former superintendent of the factory, was acquitted of the charge.

In the Kanemi Rice Oil Case,[16] Yoshito Morimoto, former superintendent of Kanemi Warehouse Company, was found guilty under Article 211 of the Penal Code of professional negligence leading to injuries and was sentenced to one

[13] Numano, ibid., note 12 at p. 48. See also Hiroshi Itakura, "Kumamoto Minamatabyo keiji saiban no igi" [Meaning of the Decision of the Kumamoto Minamata Disease Criminal Case], Jurisuto, No. 690 (May 15, 1979), p. 40.

[14] Ibid.

[15] Decision of the Tokushima District Court, Nov. 28, 1973, Hanrei jiho, No. 721 (Jan. 1, 1974), p. 7.

[16] Decision of the Kokura Branch of the Fukuoka District Court, Mar. 24, 1978, Hanrei jiho, No. 885 (June 21, 1978), p. 17.

and one-half years' imprisonment by the Kokura Branch of the Fukuoka District Court on March 24, 1978. But Sannosuke Kata, president of the same warehouse company and also a defendant, was found not guilty on the ground that he was not in a position to take responsibility for adopting preventive measures. This case involved PCB poisoning in edible oil. The poisoning came to light in the summer of 1968, when many people in western Japan started complaining about skin irritation, fatigue, and eye mucus. More than 10,000 people were affected.

In contrast to the above two cases, in which the superintendent of the factory and the president of the warehouse company respectively were acquitted, the Kumamoto Minamata Disease Case was the first criminal pollution case in Japan in which both the president and the superintendent of a corporation were held liable. At the present time, the Kumamoto Case is being appealed to an appellate court. It is expected that an opinion will ultimately be handed down by the Supreme Court.

NEW ZEALAND[1]

I. Introduction

New Zealand is a unitary state and has one criminal law for the entire country. The major criminal statute—the Crimes Act of 1961—is a criminal code in the sense that it provides that no "person"[2] can be convicted of an offense unless it is set out in an Act of New Zealand's Parliament.[3] However, the Crimes Act is not a comprehensive code. Many other statutes, including those aimed at protecting the environment and regulating businesses and working conditions, contain prescribed penalties for contraventions of the standards they require. To date, these penalties have not been consolidated or brought directly into the Crimes Act.

II. Bill H.R. 4973, Section 1822: The Affirmative Duty of Disclosure

A. Disclosure to the Government

New Zealand law does not specifically impose a general duty on all "managers" to disclose any dangers associated with a product to appropriate governmental agencies as would § 1822 of Bill H.R. 4973. However, certain statutes do prohibit the withholding of information relating to dangerous products. For example, the Food and Drug Act of 1969 provides as follows:

> 17. Duty of importer or manufacturer to report untoward effects of therapeutic drugs—(1) If at any time the importer into New Zealand of any therapeutic drug, or the manufacturer in New Zealand of any therapeutic drug has reason to believe that any substantial untoward effects have arisen from the use of the drug, whether in New Zealand or elsewhere, he shall forthwith notify the Director-General of the nature of those effects and the circumstances in which they have arisen, so far as they are known to him.[4]

The maximum penalty for an offense under this section is $NZ1,000 plus $NZ100 a day where the offense is a continuing one.[5]

B. Disclosure to Employees

New Zealand does not have an occupational health and safety law of general application and, therefore, the law does not impose a general duty on employers to inform employees of dangers associated with a product or business practice. Certain statutes require specific employers to answer inquiries by government officials, comply with safety standards and orders by inspectors, and to report industrial accidents and injuries, but they do not include provisions for mandatory communications with employees relating to all occupational dangers.[6]

[1] Prepared by Stephen F. Clarke, Legal Specialist, American-British Law Division, Law Library, Library of Congress, February 1980.

[2] The term "person" is defined to include a company or other organized body. The Crimes Act, 1969, § 2, 1 Repr. Stat. N.Z. 635 (1979).

[3] Thus, the courts of New Zealand do not have the authority to convict a person of a "common law" offense as they do in the United Kingdom. Id. § 9.

[4] Food and Drug Act, [1969] 1 Stat. N.Z., No. 7, § 17.

[5] Id. § 39(5).

[6] New Zealand's occupational health and safety laws include: The Factories Act, 4 Repr. Stat. N.Z. 775 (1957), as amended; Machinery Act, 1950 Stat. N.Z., No. 52, as amended; and The Workers Compensation Act, 4 Repr. Stat. N.Z. 3323 (1966), as amended.

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III. Bill S. 1722, § 1617: Reckless Endangerment

Section 1617 of Bill S. 1722 provides that offenses under certain provisions of federal environmental, health and safety laws would be punishable under the Federal Criminal Code if the violation placed "another person in danger of imminent death or serious bodily injury." Thus, to obtain a conviction, the Government would have to prove that: (1) a violation had occurred, and (2) that life had been endangered. New Zealand does not have such twofold tests because the criminal penalties of its environmental, health and safety laws have not been consolidated and incorporated into the Crimes Act. Consequently, behavior that recklessly endangers like would have to be the subject of a prosecution either under the general provisions of the Crimes Act or under specific provisions in other statutes.

A. The Crimes Act. Sections 156 and and 157 of the Crimes Act create the following offenses:

> 156. Duty of persons in charge of dangerous things—Every one who has in his charge or under his control anything whatever, whether animate or inanimate, or who erects, makes, operates, or maintains anything whatever, which, in the absence of precaution or care, may endanger human life is under a legal duty to take reasonable precautions against and to use reasonable care to avoid such danger, and is criminally responsible for the consequences of omitting without lawful excuse to discharge that duty.
>
> 157. Duty to avoid omissions dangerous to life—Every one who undertakes to do any act the omission to do which is or may be dangerous to life is under a legal duty to do that act, and is criminally responsible for the consequences of omitting without lawful excuse to discharge that duty.[7]

Both of these offenses are punishable either on summary conviction or on a conviction on indictment.[8]

The effect of § 156 and § 157 is to impose the same standard of negligence as the basis of criminal liability as is the basis of civil liability. Under § 157, it has been held that "dangerous things" would include animals, guns, railway engines, automobiles, motorcycles, explosives, etc.[9] With the increasing concern about environmental hazards and the dangers of unsafe products, the courts could in the future include contraventions of the environmental, health and safety laws of New Zealand by corporate representatives and other individuals.

B. Other Statutes

Certain other statutes prescribe criminal penalties for negligent acts endangering human life. For example, § 144 and § 198 of the Coal Mines Act state that "no person employed in or about a mine shall negligently or wilfully do anything likely to endanger life or limb in the mine, or negligently or wilfully omit to do anything necessary for the safety of the mine or of persons employed therein" and a violation of this law is punishable by 3 months imprisonment.[10]

IV. Bill S. 1722, Section 1853: Environmental Pollution

New Zealand has a number of environmental control laws, including The Marine Pollution Act of 1974[11] and the Clean Air Act of 1972,[12] which contain their own penalty provisions. The Crimes Act does not contain any sections relating to specific crimes against the environment, but certain activities could be found to fall within one of the sections dealing with crimes against a person or crimes against property.[13]

V. Conclusion

Bills H.R. 4973 and S. 1722 would impose a general duty on "managers" to disclose dangers associated with products and would consolidate the penalty provisions of various environmental, health and safety laws in the Federal Criminal Code. New Zealand has not reformed its criminal law in this manner; instead, the Crimes Act has been left to define general criminal offenses and more specific criminal offenses have been included in the country's regulatory statutes.

[7] The Crimes Act, 1 Repr. Stat. N.Z. 635 (1979).
[8] The distinction between summary and indictable offenses in New Zealand corresponds to that between misdemeanors and felonies in the United States.
[9] R. v. Storey [1931] N.Z.L.R. 417; R. v. Officer [1922] G.L.R. 175.
[10] Coal Mines Act, 1925, 2 Repr Stat. N.Z. 157 (1957), as amended.
[11] [1974] 1 Stat. N.Z. No. 14, as amended.
[12] [1972] 1 Stat. N.Z. No. 31, as amended.
[13] The Crimes Act, 1 Repr. Stat. N.Z. 635, Pts. VIII & X (1979).

South Africa*

South African legal provisions concerning criminal negligence violations of health and environmental hazards as well as reckless endangerment of other persons' lives are contained in the material of several legal fields, including administrative law, medical law, environmental protection law, traffic law, and others.

Nondisclosure by business entities of dangerous products is punishable in accordance with provisions of the Abuse of Dependence-Producing Substances and Rehabilitation Centres, Act No. 41 of 1971,[1] as amended up to 1978, of which an extract is attached. Also attached is an article on the subject of "Legal Remedies for Environmental Protection,[2] and an article entitled "South African Legislation Protecting Against Ionizing Radiation."[3]

Reckless endangerment is a punishable offense as defined by the Aviation Act of 1962,[4] the pertinent sections of which are attached.

Both subjects are treated in an article entitled "What Happened to Luxuria?: Some Observations on Criminal Negligence, Recklessness, and Dolus Eventualis,"[5] also attached.

Statutes of the Republic of South Africa—Medicine, Dentistry and Pharmacy
Abuse of Dependence-Producing Substances and Rehabilitation

Centres Act No. 41 of 1971

ACT to provide for the prohibition of the dealing in, and the use or possession of dependence producing drugs; the imposition of a duty on certain persons to report to the police certain information in relation to certain acts in connection with such drugs; the forfeiture of certain property of certain persons; the cancellation of certain licenses of certain persons; the creation of certain presumptions; the removal from the Republic of certain persons; the detention and interrogation of certain persons; the establishment of rehabilitation centres and hostels; the registration of institutions as rehabilitation centres and hostels; the committal of certain persons to and their detention, treatment and training in such rehabilitation centres or registered rehabilitation centres; the appointment of a Director of Rehabilitation Services to exercise control over the rehabilitation centres and hostels and registered rehabilitation centres, and the reception and discharge of inmates of rehabilitation centres and registered rehabilitation centres; the amendment of the Medical, Dental and Pharmacy Act, 1928, and the Criminal Procedure Act, 1955; and to provide for other incidental matters.

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6. *Duty of certain persons to report to police certain information.*—(1) If the owner, occupier or manager of any place of entertainment, or any person in control of or who has the supervision of any place of entertainment, has reason to believe that any person in or on such place of entertainment has in his possession, uses or deals in any dependence-producing drug or any plant from which such drug can be manufactured in contravention of the provisions of this Act, such owner, occupier or manager or person in control of or who has the supervision of such place of entertainment, shall forthwith report his suspicion to any police officer on duty at the nearest police station and shall, at the request of such police officer, furnish such police officer with such details at his disposal regarding the person in respect of whom the suspicion exists.

*Prepared by Anton Wekerle, Senior Legal Specialist, Near Eastern and African Law Division, Law Library, Library of Congress, February 1980.
[1] 20 Stat. of the Rep. of S. Afr.: Medicine, Dentistry, and Pharmacy 531–539(1) (1971). (Loose-leaf.)
[2] Rable, 5 Comp. & Int'l L.J. of S. Afr., No. 3 of November 1972, 247–280.
[3] *Id.*, vol. 6, No. 3 of November 1973, 403–412.
[4] 3 S. Afr. Crim. L. and Pro.: Statutory Offences 622–624 (R.L. Milton ed. 1971). Because of space limitations, this item is not reprinted here.
[5] Bertelsmann, 92 S. Afr. L.J. 59–77 (1975). Because of space limitations, this article is not reprinted here.

(2) Any person who fails to comply with the provisions of subsection (1), shall be guilty of an offence and liable on conviction—

(*a*) in the case of a first conviction, to imprisonment for a period of not less than five years, but not exceeding fifteen years;

(*b*) in the case of a second or subsequent conviction, to imprisonment for a period of not less than ten years, but not exceeding twenty-five years:

Provided that if the offence of which a person is convicted under this section relates to the possession of, use of or dealing in dagga only, such person shall be liable—

(i) in the case of a first conviction, to imprisonment for a period not exceeding fifteen years;

(ii) in the case of a second or subsequent conviction, to imprisonment for a period not exceeding twenty-five years.

(3) No prosecution shall be instituted in respect of an offence referred to in this section except upon the written authority of the Attorney-General concerned.

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THE COMPARATIVE AND INTERNATIONAL LAW JOURNAL OF SOUTHERN AFRICA

LEGAL REMEDIES FOR ENVIRONMENTAL PROTECTION

(Exerpts only—entire article not reproduced)

(By MA Rabie*, Professor of Criminal and Procedural Law, University of South Africa)

INTRODUCTION

The flat assertion that pollution and destruction of the environment are issues of urgent concern in South Africa is now hardly open to contention. No further effort will therefore be made to substantiate the fact that we are experiencing an environmental crisis of alarming proportions. Attention will rather be focused on the role of the law in combating this crisis.

We so longer subscribe to a *laissez-faire* economic philosophy according to which the waste of property is, like its accumulation, a matter of private concern. The individual owner is no longer regarded as the only victim of his rape of the earth through deforestation and overgrazing, or of his abuse of air, water and other resources.[1] In short, the view of private property as being inviolate and immune to governmental regulation belongs to the past. It is generally agreed today that pollution control cannot be achieved through reliance upon voluntary efforts by polluters.

Serious attempts to control legally certain forms of pollution have been made as long ago as the thirteenth century. For example, the first smoke abatement law was passed in 1273 in England; enforcement by way of execution of offenders was not unknown.[2]

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The general concern for the environment which has been engendered by the revelation of the extent of the crisis during during the past few years is reflected in the fact that most of our environmental statutes, ordinances and by-laws are of relatively recent origin. Some of South Africa's environmental statutes, however, date back to well before the current legislative activity. The National Parks Act 56 of 1926, the Forest Act 13 of 1941, and the Soil Conservation Act 45 of 1946[3] represented some major efforts in conserving the environment in South Africa long before the general public became aware of the need for conservation. This lack of public concern was perhaps one of the main reasons why the Soil Conservation Act, for instance, failed to arrest soil erosion. The utilization of private law remedies to obtain relief where pollution caused damage, or threatened to do so, dates back even further to well before the present century.

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*BA LLB (Pret) LLD (SA).

[1] Friedmann Law in a Changing Society 2nd ed 1972 195. Cf also Reitze 55 ABA J 1969 925–926.

[2] Mix 10 Ariz L Rev 1968 90; Crocker 8 Natural Resources J 1968 236 footnote 1 and Marshall 57 ABA J 1971 23–24. Cf Tetlow, 12 No 2 Med Sci & L 1972 94.

[3] All have since been repealed and substituted.

In recent years concern for the preservation of the environment has become so great that the term "enviromental law" has come into vogue. More conservative jurists schooled in the classical traditions of jurisprudence may be forgiven if they feel a certain amount of scepticism about the use of this term. But the law must keep pace with societal and scientific development. From the purely pragmatic point of view there can be no objection to the use of the term environmental law as a convenient expression to encompass those legal rules aimed at the protection of the environment, *ie* protection of our natural resources such as air, water, land, fauna and flora, *etc* against pollution and destruction. Some legal rules, such as those pertaining to population control, cannot strictly be regarded as falling within the ambit of environmental law;[4] yet they cannot be ignored by the environmental lawyer, since overpopulation is one of the major causes of environmental pollution and destruction.

In this paper I intend commenting upon some aspects of environmental law, particularly in context with potential remedies which the law affords to the environmentalist. Amongst other things special attention will be paid to the rôle of criminal law, which in our time and society is still a major instrument in curbing reprehensible activities.

Criminal sanctions

The criminal sanction is one of the most familiar and common techniques for securing compliance with the law. It has accordingly been frequently employed in regard to South African environmental statutes.[5]

First, it must be observed that our law has not evolved any general offense by the name of "pollution," "environmental destruction" or any similar name. Criminal environmental law is apparently confined to statutory sources. In English law there is such a common law crime as public nuisance which consists of behaviour impairing the welfare and comfort of the general community.[6] Individual instances of pollution can obviously qualify as public nuisances.

Whether the crime of public nuisance exists in South Africa law is not as clear. There are some old cases[7] where persons were convicted of the crime of public nuisance, and in *Reynolds*[8] water pollution was the substance of the charge. In *Reynolds* the court attempted to reconcile its decision with Roman-Dutch law. Reference was made to Voet[9] where he discusses *crimina extraordinaria* which included water pollution. *Crimina extraordinaria* were taken over by and formed part of Roman-Dutch law.[10] Van der Keessel[11] even suggests that in respect of the extraordinary crime of water pollution, an opportunity to prosecute ought to be allowed to everybody. Although some of the crimes listed as extraordinary crimes resemble the crime of public nuisance, such crime was not known to Roman-Dutch law. Since water pollution and other acts that may qualify as public nuisances are now controlled by special statutes, and in view of the fact that for the past 70 years there have been no prosecutions for pollution as a public nuisance, it can safely be assumed that such prosecutions are now very unlikely.[12]

In dealing with criminal law as an instrument of environmental control, a distinction must be drawn at the outset between application of the criminal penalty as a sanctio nof direct resort and its application as a sanction of indirect resort. In some instances, the substantive environmentally detrimental conduct sought to be avoided, is outlawed directly.[13] In other instances the criminal

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[4] They are, accordingly, not discussed here. For an exposition of South African law relating to population control, *cf* Strauss, 12 No 1 Codicillus 1971 37 et seq.

[5] *Eg* s23 of the Water Act 54 of 1956; s 2 of the Prevention and Combating of Pollution of the Sea by Oil Act 67 of 1971; and generally as regards the protection of flora and fauna of Milton South African Criminal Law and Procedure vol. 3 1971 729 et seq. Criminal sanctions for the enforcement of environmental law are also very frequently employed by local authorities. Pollution of water, food-stuffs or property can, in terms of s21(1)(c)(d) & (g) of the General Law Amendment Act 76 of 1962, even amount to sabotage.

[6] Russel on Crime vol 2 12th ed 1964 1337; Prosser 52 Va L Rev 1966 1000 et seq; and Clerk & Lindsell on Torts 12th ed 1961 636–7.

[7] Paulse 9 (1892) SC 422; Cohen 19 (1902) SC 155. Reference to the concept of public nuisance was also made in Dell v The Town Council of Cape Town 9 (1879); Buch, 2, 6 and in Dalrymple & Others v Colonial Treasurer 1910 TS 372, 399.

[8] 22 (1901) NLR 80.

[9] 47.11.2.

[10] Voet 47.11; Matthaeus 47.5; Van Leeuwen Censura Forensis 5.20; and Van der Keessel Praelectiones ad Jus Criminale 47.11C.6. Cf Mars 1911 28 S ALJ 492.

[11] 47.11.6.

[12] Cf Milton 448.

[13] Cf footnote 76.

sanction is employed as a means of enforcing prerequisites to this conduct, *eg*, engaging in an activity without the required permit or licence,[14] of enforcing steps to prevent this conduct, *eg*, disregarding a notice of abatement in regard to a particular activity,[15] or of controlling the means by which this conduct can be committed.[16]

Application of the criminal penalty as a sanction of indirect resort, is preferable to its application as a sanction of direct resort. It will in many instances be far easier to prove the elements of the crime of engaging in an activity without a licence, or of disobeying an abatement notice, than to prove that the accused has committed a certain kind of environmentally detrimental activity. But most important of all, by employing the criminal penalty as a sanction of indirect resort, it is not necessary to wait until the environmentally detrimental conduct has actually materialised, before a prosecution can be brought.

Without in any way detracting fro mthe value and importance of the criminal law as an instrument to combat reprehensible conduct, it must be observed that its effectiveness in relation to environmental protection is limited by a number of conditions. Firstly, there is the objection to application of the criminal penalty as a sanction of direct resort that, in this way, damage to the environment, often of an irreparable nature,[17] can be prevented only insofar as the sanction serves as an efficient deterrent—which, as will be shown, is often doubtful. It is in this respect that Walker[18] declares: "Misdemeanor enforcement prevents nothing. It looks only to the past and seeks only punishment for past action . . . In the abatement of nuisance, and particularly in air pollution cases, it may be more important to control future conduct than to punish past misconduct." Moreover, punitive measures are generally not remedial; by sentencing the polluter to a fine or to imprisonment he is not required to repair the damage to the environment that he has caused.[19]

It must also be borne in mind that the criminal process is probably the most cumbersome coercive tool available. The accused is protected in many ways; the burden of proof and evidentiary requirements are very onerous and present formidable standards to meet in an area as complex and as difficult to prove as environmental pollution.[20] This applies particularly to instances where the criminal penalty is applied as a sanction of direct resort.

As has been remarked,[21] industrial pollution is very often the result of the maximisation of profits through the minimisation of the costs of waste disposal. As Packer[22] and Hills[23] convincingly demonstrate, the case for the use of the criminal sanction in such instances rests squarely on deterrence. If the criminal penalty is to be effective as a deterrent, the probability of detection of environmentally detrimental conduct must be high and the sanction must be stringent enough in order to overcome the motive of economic gain.[24] If this is not the case, the fine will merely be regarded as part of the cost of doing business, a kind of tax as it were.[25] Bearing in mind the fact that our environmental laws in South Africa are not adequately enforced[26] and that the fine is usually relatively small,[27] criminal sanctions can hardly serve as an effective deterrent.

It might be contended that the stigma associated with a criminal process and conviction will have some deterrent effect, especially as regards polluters who

[14] Eg s 9(2) of the Atmospheric Pollution Prevention Act 45 of 1965, in terms of which it is an offence for anyone to carry on a scheduled process in or on any premises without having obtained a registration certificate. The environmentally detrimental activity in this instance is the causation of noxious or offensive gases.
[15] supra p 250.
[16] Eg s 15 and s 28 of the Atmospheric Pollution Prevention Act 45 of 1965.
[17] supra p 254–5.
[18] 10 Ariz L Rev 1968 87.
[19] Lynch Gindler & Stanton 44 LAB Bull 1969 155–156.
[20] Kovel 46 J Urban L 1968 153, 157; Reed 12 Ariz L Rev 1970 512 and Specter 32 U Pitt L Rev 1971 510.
[21] 250–1.
[22] 356.
[23] Crime, Power & Morality 1971 189.
[24] Lucas 6 UBC L Rev 1971 176; Little 23 U Fla L Rev 1971 473; Kadish 30 U Chi L Rev 1963 442; Packer 255–256; and Andenaes 114 U Pla L Rev 1966 960 et seq.
[25] Kovel 170 and Walker 87.
[26] Infra p 278–280.
[27] Penalties in terms of parliamentary environmental statutes range generally between fines of R200 or 6 months' imprisonment to fines of R1 000 or 1 year's imprisonment. (Exceptionally, a severe punishment is prescribed for a very serious form of pollution, such as oil pollution of our coastal waters.) Penalties in terms of local by-laws range generally between fines of R20 to fines of R100.

value their status in the community, and in view of the fact that polluters usually have ample opportunity to weigh the risks against the advantages and to bear in mind the possibility that their conduct will amount to an offence.[28] However, most industrial polluters are corporations, and Packer[29] indicates that the fact of a criminal conviction has virtually no adverse effect on a company's economic position.

In this connection is must be remembered that the type of conduct that society considers as sufficiently worthy of condemnation to stipulate a criminal sanction is deeply influenced by the values prevailing in that society.[30] It is with regret that one must concede that the moral sense of our community has probably not yet developed to the stage where pollution is generally considered to be morally wrong,[31] and experience has shown that, for a law to be effective, it must follow the dictates of prevailing values and mores and not *vice versa*.[32] As was noted by Hart,[33] "the criminal law always loses face if things are declared to be crimes which people believe they ought to be free to do, even wilfully." Under these circumstances it is very difficulty to create an attitude of social reprehensibility by the mere fact of criminalising environmentally detrimental conduct.[34] In fact this usually has the effect of de-criminalizing the criminal law.[35] However, protection of the environment is rapidly rising on the scale of societal priorities; concern for the environment is increasing by the day, and let it be hoped that pollution may soon be generally regarded as morally wrong.

Since the purpose of criminal law is the regulation of conduct into channels deemed desirable by the legislature,[36] resort to a criminal sanction for enforcing environmental law is certainly legitimate; in view of what has just been said, however, all alternative means of control must be explored and considered before we impose or continue to impose upon ourselves the manifold burdens of invoking the criminal sanction to control pollution.[37]

Packer[38] asserts: "Sometimes we may seem to buy only trouble with the resources we spend on the criminal sanction. But regardless of that, what we buy with our marginal dollar does not have equivalent marginal utility. Wisdom about the uses of the criminal sanction begins with recognition of that fact."

Where the criminal penalty is found to be the only effective sanction, it is of vital importance to any criminal case that the evidence gathered by the investigating officer be adequate. This is especially true as regards an unconventional crime such as a statutory form of pollution, where a great deal of expertise is required in order to investigate the case properly. This expertise cannot be expected from the ordinary policeman who is saddled with the task of investigation.

In certain instances specific branches have been created within the police department to deal with some crimes whose investigation requires specialized training, *eg*, the fraud, diamond, gold and commercial branches. In other instances cases involving aspects requiring specialized training are referred to specialized agencies whose task it is to deal with the particular aspect, *eg*, cases involving company fraud are referred to the Registrar of Companies.

It is not suggested that the already overburdened police department establish a special pollution squad, but what is advocated is that if a charge involving criminal pollution is laid, the police should be required to refer the case to the relevant specialized agency, *eg* the Department of Health and local authorities in cases of air pollution, the Division of Agricultural Technical Services of the Department of Agriculture in cases involving pesticides, the Division of Soil Protection of the Department of Agriculture where soil erosion is concerned, the Provincial Departments of Nature Conservation where illegal hunting, fishing, or removal and destruction of plants are concerned, *etc.* In many cases, of course, these departments themselves lay the charges,[39] but where this is not the

[28] Packer 356–357 and Hills 189.
[29] 361.
[30] Friedmann 194.
[31] Mix 10 Ariz L Rev 1968 90 and Kovel 154–155.
[32] Kadish 436–437 and Hills 189.
[33] 23 Law & Contemp Prob 1958 418 footnote 42.
[34] That outlawing certain conduct can have this effect, is suggested by Andenaes 43 J Crim L 1952 179 and 114 U Pa L Rev 1966 950.
[35] Packer 359 and Kadish 444 et seq.
[36] Mueller 69 Colum L Rev 1960 951.
[37] Packer 251.
[38] 301.
[39] It may be remarked here that anyone can lay a charge in any instance of criminal pollution; it is not a prerogative of these departments.

case, there must be some machinery for ensuring that their expertise will be used when a case of criminal pollution is investigated.

One problem remains: officials of these specialized departments investigating a case usually do not have any legal training. This could cause much of their valuable work to be rendered nugatory, because evidence obtained may be inadmissible, irrelevant, *etc.* To overcome this difficulty it would be of great value if these officials could receive training in the law of criminal procedure and the law of evidence. A further suggestion is that these departments should have their own prosecutors, who could then specialize in the relevant field of criminal environmental law.

An interdict, as has been pointed out,[40] is a very valuable remedy in the environmental field. This is particularly true if the environmentally detrimental conduct is of a continuing nature. The question is whether an interdict is available to restrain such conduct where it is prohibited by criminal sanctions.

In England the attorney-general and, in certain instances, even individuals are entitled to an interdict for the suppression of continuing offences against the public welfare for which inadequate penalties have been provided.[41] No such remedy exists in South Africa, but the Supreme Court may, if it convicts a person of one or more offences, and if it is satisfied that this person habitually commits offences, declare him an habitual criminal, in which case a minimum sentence of 9 years' imprisonment can be imposed.[42] The implementation of this provision could take care of individual polluters who regard the fine imposed on conviction for criminal pollution as part of the cost of doing business.[43]

McKerron [44] suggests that the decision in *Petz v Greene & Co.*[45] serves a useful purpose in supplementing the criminal law as a means of preventing the commission of criminal acts where the relevant statute is not enforced. However, only persons who can prove all the traditional requirements for an interdict—including personal damage or the apprehension of such damage—will be able to succeed; this relief is unfortunately not open to every public-spirited citizen.[46] The question may be asked *de lege ferenda* whether a court might not in future be prepared in granting an interdict to consider the rights of people affected indirectly by a criminal act of pollution, rather than confining its view to the direct damage caused to a private party.

A private prosecution can be instituted in the exceptional cases where the attorney-general refuses to prosecute a criminal polluter. However, as in the case of judcial review of administrative actions [47] this remedy is only open to persons who have some substantial and peculiar interest in the issue of the trial; this interest, moreover, must arise out of some injury which was "individually suffered in consequence of the commission of an offence." [48] This interest has been defined so narrowly that it can be asked whether there is much hope for the employment of a private prosecution to combat environment damage. The widening of the interest affording the right to prosecute privately deserves the attention of the legislature.

Apart from affording an extremely limited remedy, a private prosecution may be very costly.[49] It does, however, offer citizens and societies concerned with the environment the possibility of using and assisting as private prosecutor a person who has individually suffered some injury as a result of criminal pollution, in order to get polluters punished in the exceptional cases where the attorney-general refuses to prosecute. This will, of course, only be possible in instances where there is such a person and where is is willing to co-operate.

In regard to sentence, it can be remarked that fines and imprisonment as punitive measures are, from an environmental point of view, unsatisfactory, since

[40] 254.
[41] De Smith Judicial Review of Administrative Action 2nd ed 1968 466 et seq.
[42] S 335(1) of the Criminal Procedure Act 56 of 1955.
[43] supra p 262.
[44] The Law of Delict 7th ed 1971 282–283.
[45] 1907 TS 427. In *Petz* v. *Greene* & Co. it was decided that a person is entitled to an interdict to restrain contravention of a prohibition sanctioned by criminal penalty if he can prove that he has sustained damage as a result of the contravention. (Where the relevant conduct is expressly prohibited in the interests of a particular person, damage will be presumed) Cf Rable 1972 THRHR November.
[46] Cf Rable 1972 THRHR November.
[47] Infra p 270 et seq.
[48] S 11(a) of the Criminal Procedure Act 56 of 1955. S 11(b) (c) and (d) make provision for some other persons to represent him.
[49] Cf s 115, 19 and 20 of the Criminal Procedure Act.

the damage to the environment is not thereby repaired.[50] The most that one can hope for, is that the polluter will be deterred from repeating his conduct.

Far more positive results can be obtained by resort to suspended sentences, since measures to control or prevent pollution can be stipulated in the conditions of suspension, eg, the installation of pollution control equipment, or the removal of sewers.[51]

It is generally accepted that the certainty of detection and punishment is of greater consequence in deterring people from committing crimes than is the severity of the penalty.[52] However, although very few statistics are available, and allowance must be made for exceptions, it seems reasonable to suggest that where the law is enforced the general preventive effect of the criminal law increases with the growing severity of penalties.[53] Since many polluters are typically "white-collar" offenders, the threat of imprisonment may be of significantly greater deterrent value than the severity of the fine.[54]

A far more effective way of securing compliance with provisions aimed at controlling or preventing pollution is to make use of abatement notices as set out above.[55] Apart from any penalty that may be imposed for failure to comply with the notice (*ie*, failure to control pollution or to prevent its aggravation or recurrence) the author of the notice can himself undertake the necessary action to control or prevent the pollution and recover the costs from the polluter.[56]

Another valuable provision is the stipulation that, on conviction for a crime involving environmentally detrimental conduct, the spoils of the crime and any article or object which was used in connection with the commission of the crime shall be declared by the court to be forfeited.[57] This may remove the motive for the crime and induce fear as regards losing some of one's valuable possessions.

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South African Criminal Law and Procedure—Statutory Offences

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D. Aviation

1. Introduction

The Aviation Act, 1962, is concerned with the control, regulation and encouragement of flying in the Republic. The provisions of this Act apply to all aircraft while in or over any part of the Republic or its territorial waters. These provisions do not, however, apply to aircraft or personnel belonging to the department of Defence.

The following offences are created by the Act or by the regulations made under the Act:

* * * * * * *

222. *Dangerous flying*

It is an offence:

(*a*) to fly an aircraft in a reckless or negligent manner so as to endanger the life or property of others,

[50] To be sure, compensation can upon conviction be awarded in terms of s 357 of the Criminal Procedure Act, where a person through his criminal pollution has caused damage to the victim's property. This is, however, a rather restricted remedy since it applies only to damage to the victim's property. Moreover, as has been pointed out, damage resulting from pollution is often irreparable and even if the damage can be repaired, there are many problems in this context.
[51] If these conditions cannot be conveniently included among the terms expressly provided in s 352(1) (a) of the Criminal Procedure Act, they could probably always be subsumed under the words "or otherwise" in this sub-section. *Cf R.* v. *Hendricks* 19115 CPD 821 and Swift's Law of Criminal Procedure 2nd ed by Harcourt 1969 660.
[52] Andenaes 114 U Pa L Rev 1966 964.
[53] Andenaes 970.
[54] Andenaes 969 and Hills 189.
[55] supra p 250.
[56] supra p 250.
[57] Eg s 107(1) and (3) of the Transvaal Nature Conservation Ordinance 17 of 1967.

(*b*) to pilot any aircraft or be a member of the crew of an aircraft while under the influence of intoxicating liquor or narcotic drug by reason of which the persons capacity to act as pilot or crew is impaired;

(*c*) to operate an aircraft in such proximity to another aircraft as to create a collision hazard;

(*d*) to operate an aircraft in any manner not in accordance with the regulations relating to rights of way;

(*e*) to fly at an altitude lower than that prescribed

(i) over congested areas of cities, town or settlements or open air assemblies of persons, or

(ii) elsewhere unless such flight can be made without hazard or nuisance to person or property on the ground or on water, or

(iii) over a game reserve.

(*f*) to drop substances from an aircraft in flight unless in an emergency or the substance is a ballast of clean water or fine sand or is a chemical substance used for purposes of dusting or spraying;

(*g*) to pick up objects in flight;

(*h*) to make parachute descents except in an emergency or with permission;

(*i*) to fly an aircraft unless dual aircraft or engine controls are disconnected;

(*j*) to fly an aircraft acrobatically so as to endanger air traffic or in the vicinity of recognized air routes, or within five nautical miles of an aerodrome at a height of less than 4,000 feet or unless the manoeuvre can be concluded above the prescribed minimum height or over any populous area or public gathering;

(*k*) to land on or take off from any public road, except in an emergency.

SWITZERLAND[1]

A careful analysis of the Swiss legal system did not reveal any comparable legislation to H.R. 4973 or to the attached amendment. Laws concerning environmental protection are a relatively new development in Switzerland.

UNITED KINGDOM*

I. INTRODUCTION

There is increasing legislation imposing affirmative duties on public bodies and persons, the infringement of which is backed by criminal penalties. This approach largely embodied in the public welfare legislation is in contradistinction to the common law which as a series of prohibitions against particular acts, generally took no regard of omissions in carrying out positive acts. An example of a legislatively imposed duty is the requirement that the occupier of a house furnish information to the health authorities concerning the presence of specified diseases.[1] Similarly, the owner of a dangerous or dilapidated building may be ordered to take steps to remove the danger created by the condition of the building, and the failure to do so is punishable as a criminal offense.[2] Legislation controlling environmental pollution, worker safety and consumer protection forms part of this trend towards the imposition by the state of penally sanctioned positive duties.

II. H.R. 4973, SEC. 1822. AFFIRMATIVE DUTY TO DISCLOSE

This provision places a positive duty on employers to inform relevant authorities and affected employees of dangerous products and business practices which pose a serious danger to workers. There are parallel provisions in United Kingdom legislation on the health safety and welfare of workers and of the public as affected by work activities.

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[1] Prepared by Dr. Miklos K. Radvanyi, Senior Legal Specialist, European Law Division, Law Library, Library of Congress, February 1980.

*Prepared by Kersi B. Shroff, Senior Legal Specialist, American-British Law Division, Law Library, Library of Congress, February 1980.

[1] The Public Health Act, 1961, 9 & 10 Eliz. 2, c. 64, § 39.

[2] The Public Health Act, 1936, 26 Geo. 5 & 1 Edw. 8, c. 49, § 59.

The Health Safety at Work, etc. Act, 1974, c. 37, imposes a detailed program on the employer to insure welfare at work of all his employees. In discharging this duty, § 2(3) of the Act requires:

> (3) Except in such cases as may be prescribed, it shall be the duty of every employer to prepare and as often as may be appropriate revise a written statement of his general policy with respect to the health and safety at work of his employees and the organisation and arrangements for the time being in force for carrying out that policy, and to bring the statement and any revision of it to the notice of all of his employees.

A failure to discharge this duty to disclose is punishable on summary conviction by a fine not exceeding £400 and on conviction on indictment by imprisonment for a term not exceeding 2 years, or a fine, or both (§ 33). The legislative intent behind the provision is that in implementing it the employer would be forced to have clear policy objectives on health and safety.

Section 2(3) of the Act does not provide any guidance on what would be regarded as an adequate and suitable statement of safety policy but it is clear that the following elements would be covered:

(i) a statement of the general policy.

(ii) the organisation used to implement the policy, and

(iii) the arrangements for making the policy effective, including identification of the chain of responsibility.

It would thus appear that in the event of a situation arising whereby the safety of workers would be in danger, the chain of responsibility would ensure that the danger would be brought to the attention of the workers. While the provision does not directly require the information to be conveyed to the relevant government authority, the absence of a written statement of the safety policy would serve to alert inspectors appointed under the Act to investigate the concern. In case of an article or substance considered by an inspector to be the cause of imminent danger, the inspector may render it harmless by destruction or otherwise (§ 25).

A business entity may also be required to disclose compulsorily to the Health and Safety Commission, set up under the Act, any information concerning health and safety matters (§ 27(1)). The type of information to be disclosed will be defined in regulations, which have not yet been issued.

Disclosure of information on the health and safety performance of a corporation may also be required under § 70 concerning directors' reports. Under the language of this section, such reports may be required to include information on the general environmental effects of work activity. The Act also imposes strict liability on manufacturers, designers, importers and suppliers of articles or substances for "use at work" (§ 6) (copy attached). The expression "for use at work" would mean that the responsibilities under § 6 would only extend to machinery, plant and components used in a manufacturing process and not to the finished product. In the case of the finished product, since a consumer relationship would be created, it is dealt with by consumer protection laws.

Powers to obtain information and to inspect work premises are also found in legislation governing the production of atomic energy and control of environmental pollution. The Atomic Energy Act, 1946, 9 and 10 Geo. 6, c. 80, § 4 grants the Secretary of State the power to seek information on any plant used in the production of atomic energy. A refusal to supply the information makes a person liable, on summary conviction to a term not exceeding 3 months or a fine ,or both, and on conviction on indictment to imprisonment not exceeding 5 years or a fine, or both. The same Act grants the Secretary the power to enter and inspect any facilities used for the production of atomic energy (§ 5). A refusal to allow inspection is punishable in the same manner as above. Under the Nuclear Installations Act, 1965, c. 57, § 7, the licensee of a nuclear installation has the duty to secure that no occurrences involving nuclear matters causes injury to any person or damage to any property, being injury or damage arising out of radioactive properties, or a combination of those and any toxic, explosive or other hazardous substances.

Local government authorities may by notice seek information about air pollution from the occupiers of business premises under the Control of Pollution Act, 1974, c. 40, § 80. A failure to comply with the notice renders a person liable on summary conviction to a fine of £400.

Finally, in relation to pollution, the Health and Safety at Work, etc. Act, 1974, § 5(1) imposes on occupiers of business premises the duty to prevent the emis-

sion into the atmosphere of noxious or offensive substances. The breach of this duty is treated as a criminal offense.

III. S. 1722, § 1617. Reckless Endangerment

The concept of recklessness as connoting an awareness or realization that a certain conduct may cause the elements of a crime, is not often found in statutes creating criminal offenses. Some instances, relevant to the instant inquiry, are, however, provided in judicial decisions interpreting statutory crimes. Under the Offences Against the Person Act, 1861, 24 & 25 Vict., c. 100, § 23, maliciously administering a poison, etc., so as to endanger life or inflict grievous bodily harm, is an offense punishable by penal servitude for a term not exceeding 10 years. The word "maliciously" in a statutory crime requires an actual intention to do harm or recklessness whether harm should occur or not (R. v. Cunningham, [1957] 2 All E.R. 412). A similar provision in the Explosive Substances Act, 1883, 46 & 47 Vict., c. 3, § 2 concerning causing an explosion of a nature likely to endanger life, must be construed as including recklessness. Express mention of recklessness is found in the Criminal Damage Act, 1971, c. 48, § 1 relating to the destruction or damaging of property. The concept has also been incorporated as follows in the Health and Safety at Work, etc. Act, 1974, § 8:

"No person shall intentionally or recklessly interfere with or misuse anything provided in the interests of health, safety or welfare in pursuance of any of the relevant statutory provisions."

Statutory provisions in the United Kingdom parallel to those incorporated in S. 1722, § 1617, do not specifically provide for reckless endangerment of life or body. However, any reckless conduct which causes death or bodily injury is adequately covered under the criminal law governing gross or criminal negligence. In the following cases persons guilty of gross negligence were convicted of manslaughter: R. v. Gregory, [1860] 2 F. & F. 153 (explosion on ship owing to an inefficient valve); R. v. Lowe, 4 Cox C. C. 449 (1850) (leaving incompetent person in charge of machinery); R. v. Haines, 2 Car. & Kir. 368 (1847) (neglecting ventilation of mine); R. v. Hughes, 7 Cox C. C. 301 (1857) (omission to place a stage over shaft of mine).

IV. S. 1722 § 1853. Environmental Pollution

Criminal offenses in the following areas of environmental pollution are created by various statutes in the United Kingdom:

Atmospheric pollution

The Clean Air Act, 1956, 4 & 5 Eliz. 2, c. 52. In the case of dark smoke from a chimney of a private dwelling, a fine of up to £100, and, in the case of dark smoke from any other chimney, a fine of up to £400 is imposed. Dark smoke from vessels in navigable waters is subject to a fine not exceeding £1,000. Installations of new chimneys which are not so far as practicable smokeless, gives rise to an offense which is liable on summary conviction to a fine of up to £100. The emission of smoke in an area designated as a smoke control area is also an offense which is liable on summary conviction to a fine of up to £100.

The Control of Pollution Act, 1974, Part IV, authorizes the Secretary of State to make regulations imposing requirements as to the composition of fuel used in motor vehicles (§ 75), and the sulphur content of oil used as fuel for furnaces or engines (§ 76). A failure to comply with these regulations renders a person guilty of an offense and liable (a) on conviction on indictment to a fine; and (b) on summary conviction to a fine not exceeding £400 (§ 77). A person who burns insulation from a cable with a view of recovering metal is guilty of an offense and liable on summary conviction to a fine not exceeding £400 (§ 78).

Pollution of Waters

The Public Health Act, 1936, § 27, prohibits throwing, etc. into any public sewer any matter likely to injure the sewer or interfere with its free flow; or any chemical, petroleum spirit or carbide of calcium. A person contravening these provisions is liable to a fine of £10 and a further fine of £5 for each day on which the offense continues.

Under the Control of Pollution Act, 1974, anyone who knowingly permits the pollution of rivers and coastal waters is liable on summary conviction to imprisonment not exceeding 3 months or a fine of £400 or both: on conviction on indictment, to imprisonment not exceeding 2 years or a fine or both.

Under the Prevention of Oil Pollution Act, 1971, c. 60, §§ 1, 2, the discharge of certain oils into the sea within and outside the United Kingdom territorial waters makes a person liable on summary conviction to a fine not exceeding £50,000 or on conviction on indictment to a fine.

Under the Dumping at Sea Act, 1974, c. 20, § 1, anyone who dumps substances or articles into waters within the United Kingdom or into waters outside the United Kingdom, if from a British vessel, shall be guilty of an offense and liable (a) on summary conviction to a fine of up to £400 or to imprisonment for up to 6 months, or both; or (b) on conviction on indictment, to imprisonment for up to 5 years or a fine, or both.

Waste on land

The Public Health Act, 1936, makes it an offense to contravene a nuisance order issued by a local government authority concerning the deposit or accumulation of substances prejudicial to health. A fine of up to £400 and a further fine of £50 for each day the offense continues may be levied on conviction (§ 95).

Any person who abandons on public land a motor vehicle or any part thereof, or any other thing, shall be liable on summary conviction to a fine of up to £100 or for a second offense a fine of up to £200 or imprisonment for 3 months or both (The Civic Amenities Act, 1967, c. 69, § 19).

Pollution by noise

Any noncompliance with the provisions of the Control of Pollution Act, 1974, Part III, concerning the abatement of noise pollution, is an offense liable on summary conviction (a) in the case of a first offense to a fine of up to £200; and (b) in the case of a second and subsequent offense to a fine of up to £400.

Halsbury's Statutes of England—Continuation Volume, 1974

Health and Safety at Work etc. Act 1974, Section 6

6. General duties of manufacturers etc. as regards articles and substances for use at work

(1) It shall be the duty of any person who designs, manufactures, imports or supplies any article for use at work—

(a) to ensure, so far as is reasonably practicable, that the article is so designed and constructed as to be safe and without risks to health when properly used;

(b) to carry out or arrange for the carrying out of such testing and examination as may be necessary for the performance of the duty imposed on him by the preceding paragraph;

(c) to take such steps as are necessary to secure that there will be available in connection with the use of the article at work adequate information about the use for which it is designed and has been tested, and about any conditions necessary to ensure that, when put to that use, it will be safe and without risks to health.

(2) It shall be the duty of any person who undertakes the design or manufacture of any article for use at work to carry out or arrange for the carrying out of any necessary research with a view to the discovery and, so far as is reasonably practicable, the elimination or minimisation of any risks to health or safety to which the design or article may give rise.

(3) It shall be the duty of any person who erects or installs any article for use at work in any premises where that article is to be used by persons at work to ensure, so far as is reasonably practicable, that nothing about the way in which it is erected or installed makes it unsafe or a risk to health when properly used.

(4) It shall be the duty of any person who manufacturers, imports or supplies any substance for use at work—

(a) to ensure, so far as is reasonably practicable, that the substance is safe and without risks to health when properly used;

(b) to carry out or arrange for the carrying out of such testing and examination as may be necessary for the performance of the duty imposed on him by the preceding paragraph;

(c) to take such steps as are necessary to secure that there will be available in connection with the use of the substance at work adequate information about the results of any relevant tests which have been carried out on

or in connection with the substance and about any conditions necessary to ensure that it will be safe and without risks to health when properly used.

(5) It shall be the duty of any person who undertakes the manufacture of any substance for use at work to carry out or arrange for the carrying out of any necessary research with a view to the discovery and, so far as is reasonably practicable, the elimination or minimisation of any risks to health or safety to which the substance may give rise.

(6) Nothing in the preceding provisions of this section shall be taken to require a person to repeat any testing, examination or research which has been carried out otherwise than by him or at his instance, in so far as it is reasonable for him to rely on the results thereof for the purposes of those provisions.

(7) Any duty imposed on any person by any of the preceding provisions of this section shall extend only to things done in the course of a trade, business or other undertaking carried on by him (whether for profit or not) and to matters within his control.

(8) Where a person designs, manufacturers, imports or supplies an article for or to another on the basis of a written undertaking by that other to take specified steps sufficient to ensure, so far as is reasonably practicable, that the article will be safe and without risks to health when properly used, the undertaking shall have the effect of relieving the first-mentioned person from the duty imposed by subsection (2)(*a*) above to such extent as is reasonable having regard to the terms of the undertaking.

(9) Where a person ("the ostensible supplier") supplies any article for use at work or substance for use at work to another ("the customer") under a hire-purchase agreement, conditional sale agreement or credit-sale agreement, and the ostensible supplier—

(*a*) carries on the business of financing the acquisition of goods by others by means of such agreements; and

(*b*) in the course of that business acquired his interest in the article or substance supplied to the customer as a means of financing its acquisition by the customer from a third person ("the effective supplier"),

the effective supplier and not the ostensible supplier shall be treated for the purposes of this section as supplying the article or substance to the customer and any duty imposed by the preceding provisions of this section on suppliers shall accordingly fall on the effective supplier and not on the ostensible supplier.

(10) For the purposes of this section an article or substance is not to be regarded as properly used where it is used without regard to any relevant information or advice relating to its use which has been made available by a person by whom it was designed, manufactured, imported or supplied.

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