The Crime of “Knowing Endangerment” Under the Clean Air Act Amendments of 1990; Is It More ”Bark Than Bite” as a Watchdog to help Safeguard a Workplace Free From Life-Threatening Hazardous Air Pollutant Releases?

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INTRODUCTION

Less than fifteen years ago, the criminal investigation of corporate and individual environmental polluters was not a high priority for most federal and state prosecutors. Since then, this attitude certainly has changed. Today, almost every state and federal prosecutor's office has at least one specialist who exclusively investigates and prosecutes environmental crime. This increased interest in criminal environmental prosecution arose, in part, in response to the recent enactment of innovative federal and state legislation providing severe criminal felony sanctions for "knowing," "reckless," or even "negligent" violations of environmental statutes. For example, at the federal level, both the Resource Conservation and Recovery Act of 1976 ("RCRA") and the Clean Water Act ("CWA"), include crimes with a "knowing endangerment" mens rea that provide for up to fifteen years imprisonment for criminally culpable individuals. These "knowing endangerment" crimes have been hailed by prosecutors as an im-

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1. See Dick Thornburgh, Criminal Enforcement of Environmental Laws—A National Priority, 59 GEO. WASH. L. REV. 775, 776 (1991) (policy of criminal prosecutions has developed over past two decades). See also Anthony J. Celebrezze, Jr. et al., Criminal Enforcement of State Environmental Laws: The Ohio Solution, 14 HARV. ENV'TL. L. REV. 217, 218 n.3 (1990) (39 states have enacted criminal air pollution statutes and all 50 have criminal water pollution and hazardous waste laws). For a discussion of state and local enforcement systems, see Mark S. Pollock, Local Prosecution of Environmental Crime, 22 ENV'TL. L. 1405 (1992), and R. Christopher Locke, Environmental Crimes: The Absence of "Intent" and The Complexities of Compliance, 16 COLUM. J. ENV'TL. L. 311, 312 (1991) (many states have developed programs similar to federal program for criminal enforcement of environmental laws).


important additional weapon in the federal environmental enforcement arsenal.

Although "knowing endangerment" crimes were not drafted solely as worker safety laws, Congress definitely intended their jurisdiction to include the workplace. Recent prosecutions under RCRA and CWA confirm that federal prosecutors intend to enforce "knowing endangerment" criminal provisions as part of their effort to safeguard workers from life-threatening conditions imposed by their employers.

In 1990, when Congress enacted the Clean Air Act ("CAA") Amendments, it created the crime of "knowing endangerment" by incorporating features from similar provisions of RCRA and CWA. Like its earlier counterparts, the amended CAA is armed with severe penalties. This potentially powerful prosecutorial weapon, however, may prove to be little more than a "paper tiger" in the federal courtroom. Successful prosecution of this "knowing endangerment" crime demands additional burdens of proof that prosecutors have not previously faced under similar "knowing endangerment" statutes. In addition, this "knowing endangerment" crime may not apply to conduct in which employees are endangered by hazardous air pollutants released from inside, rather than outside, the confines of the workplace. In light of these potential legal pitfalls, it may be the states, rather than the federal government, that, in their traditional role of ensuring worker safety, must prosecute criminal conduct surrounding hazardous air pollutant releases that create a substantial risk of injury to employees within the workplace.

This Article explores the problems in using the "knowing endangerment" provisions of the CAA Amendments to protect workers from hazardous air pollutants in the workplace. Part I briefly examines the development of criminal environmental statutes that led to the enactment of the crime of "knowing endangerment" under the CAA Amendments. Part II analyzes the elements federal prosecutors must prove under this new "knowing endangerment" crime and, in particular, its jurisdictional limitations concerning life-threatening air releases occurring inside the physical confines of the workplace. Part III compares prosecutions under the "knowing endangerment" provi-

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5. Id. at 490.
8. 42 U.S.C. § 7413(c)(5)(A), (B) (1988 & Supp. V 1993) (first offenses under the "knowing endangerment" provision of the CAA Amendments by an individual carry a prison sentence of up to 15 years, and violations by a corporation carry a fine of up to $1 million).
sions of the CAA Amendments with those of the Occupational Safety and Health Act ("OSHA"). Part IV examines some of the legal challenges and opportunities that state prosecutors may face under state law if they prosecute similar criminal environmental conduct that endangers worker safety. This Article concludes with a discussion of the role of state prosecutors in protecting the workplace.

I. HISTORICAL DEVELOPMENT OF CRIMINAL ENVIRONMENTAL STATUTES LEADING UP TO THE CREATION OF THE CRIME OF "KNOWING ENDANGERMENT" UNDER THE CLEAN AIR ACT

A. Federal Criminal Environmental Legislation Which Leads to the Creation of "Knowing Endangerment" Crimes

Federal criminal environmental statutes have been in existence since the nineteenth century. The Rivers and Harbors Act was enacted by Congress in 1899. Under this early environmental statute, Congress made it a federal misdemeanor to throw, deposit, or discharge any refuse matter, other than that flowing from sewers and streets, into any body of navigable water of the United States. The Rivers and Harbors Act, however, was rarely utilized by federal prosecutors until about sixty years after its enactment and then only sparingly.

Federal criminal prosecution of individual and corporate environmental polluters on a comprehensive scale is a recent development. Until the late 1970s, virtually all enforcement of federal environmental laws relied solely upon the use of civil remedies such as administrative actions, injunctions, and court actions for civil penalties. For example, between 1972 and 1974, the Department of Justice indicted a total of only fifteen defendants for violations of federal environmental laws.

One reason for the lack of criminal enforcement actions brought during the 1970s was that existing federal environmental statutes had made it difficult for prosecutors to prove criminally culpable conduct. Even when culpability could be proven, federal environmental statutes provided for only modest criminal sanctions. By the late 1970s, however, many federal prosecutors realized that criminal, rather than civil, enforcement actions were often needed to ensure

12. Celebrezze et al., supra note 1, at 219.
that “bad actors” would comply with environmental statutes. Civil enforcement actions seeking damages against large corporations for civil penalties often provided little more than a “slap on the wrist” to those corporations and their culpable corporate officers. In many situations, the costs of civil penalties were simply passed on to the consumer by the corporation in the form of higher prices. In addition, during the late 1970s, American society’s attitude toward the environment began to change. The public began to view corporate environmental violators as public health threats and demanded strict criminal environmental sanctions against “bad actors.” A 1984 public opinion poll by the Department of Justice revealed that environmental criminal conduct was viewed as more serious than many historically notorious crimes, such as heroin smuggling, bank robbery, and attempted murder.

In response to the public’s demand for stricter enforcement of environmental laws, Congress revised existing environmental statutes in the 1980s to increase criminal sanctions and lower the burden of proof necessary for establishing criminal culpability. Moreover, Congress also created new environmental crimes, such as the crime of “knowing endangerment” found in RCRA, as amended in 1984, and the CWA Amendments of 1987. Although RCRA’s objective, to regulate the treatment, storage, transportation, and disposal of hazardous waste, has the tone of an administrative statute geared toward protecting public health and welfare, the “knowing endangerment” provision provided the first felony-level criminal sanctions in any federal environmental statute. As originally drafted, the “knowing endanger-

15. United States v. J.B. Williams Co., 354 F. Supp. 521, 548 (S.D.N.Y. 1973) ("While the imposition of maximum penalties against a large corporation may amount to little more than a slap on the wrist, the same penalties may throw a small enterprise out of business."). aff'd in part, rev'd in part, 498 F.2d 414 (2d Cir. 1974).

16. Id. at 551 (court wrestled with the problem of offenders who found penalties less costly than proper behavior; court spoke of the “necessity to induce vigilant posture” and of how the “reckless disregard of injunctions warrants the highest penalty prescribed”).

17. Celebrezze et al., supra note 1, at 217-18 (citing U.S. DEP’T JUST. STAT. BULL. 2 (Jan. 1984)).

18. Id.


22. Compare 42 U.S.C. § 6928(e) (1988) with 42 U.S.C. § 6928(e) (1982), which established a three-prong test for guilt under the “knowing endangerment” criminal provision. Under the former statute’s test, one could be punished only when one: (1) knowingly handled any hazardous waste in violation of RCRA and (2) knew at that time that he thereby placed another person in imminent danger of death or serious bodily injury, and (3) provided that his conduct in the circumstances manifested an unjustified and inexcusable disregard or extreme indifference towards human life or injury.
ment” provision was a federal prosecutor’s “evidentiary nightmare” because it was virtually impossible to prove the accused possessed all three different forms of scienter or knowledge required to sustain a conviction.\[^{23}\] Congress acknowledged this flaw in 1984 when it re-drafted RCRA’s “knowing endangerment” provision into the present form and, in particular, eliminated the third element of knowledge.\[^{24}\] Since the 1984 amendment, RCRA’s “knowing endangerment” crime has been successfully used by federal prosecutors to help ensure worker safety.\[^{25}\]

CWA was enacted to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters,”\[^{26}\] and did not contain a “knowing endangerment” provision in its original 1972 language. After amending RCRA in 1984, Congress added a similar “knowing endangerment” crime to CWA in its 1987 Amendments. The CWA “knowing endangerment” crime punishes “any person who knowingly violates [various sections of the CWA] and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury.”\[^{27}\]

It was hoped that this new arsenal of felony-level environmental crimes and accompanying sanctions would arm federal prosecutors for the first time with effective weapons against recalcitrant environmental violators. Corporate officers now faced the loss of their liberty, as well as their wealth and position, when corporate conduct under their control disregarded environmental compliance standards. In practice, federal prosecutors have had mixed results when using the crime of “knowing endangerment” against corporate managers who had been accused of endangering worker safety.\[^{28}\] Nonetheless, the draconian criminal sanctions accompanying this “super felony” under RCRA and CWA will promote its continued use in appropriate environmental prosecutions in the future.

The deterrence value of these “super felonies” under RCRA and CWA convinced Congress to provide a similar provision when it amended the CAA in 1990.\[^{29}\] Before this “knowing endangerment

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\[^{23}\] H.R. Rep. No. 198, supra note 13, at 55, reprinted in 1984 U.S.C.C.A.N. at 5614 (knowing endangerment provision was amended because the “original language render[ed] the ‘Knowing Endangerment’ provision unnecessarily restrictive and may well have contributed to the fact that since its enactment in 1980, there ha[d] not been a single indictment under this provision,”).


\[^{25}\] See generally United States v. Protex Indus., Inc., 874 F.2d 740 (10th Cir. 1989).


\[^{28}\] United States v. Borowski, 977 F.2d 27 (1st Cir. 1992) (vacated conviction against corporation and its president for illegally discharging wastes into a public sewer system).

crime" is discussed, however, it is informative to provide a short history of air pollution crimes prior to this recent development.

B. Overview of the Development of Criminal Air Pollution Laws

The establishment of strict criminal sanctions for the violation of air pollution laws is not new to Anglo-American jurisprudence. In medieval England during the thirteenth century, the sovereign enacted a smoke abatement ordinance that forbade the burning of coal in the City of London. The criminal sanction for a person found guilty of this early air pollution crime was swift, severe, and permanent—summary execution. In the United States, criminal sanctions for the violation of air pollution statutes were not available until the age of urban industrialization in the late nineteenth century. State and local air pollution prosecutions were usually limited to the use of criminal nuisance laws or local smoke control ordinances enacted by municipalities, where applicable.

When the increased presence of industry was accompanied by a concomitant increase in air pollution and other offensive treatment of the surrounding community, these statutes were supplemented by the common-law crime of public nuisance. Examples of prosecutors' use of common-law and statutory crimes exist in the nineteenth and early twentieth century. For example, New York State prosecutors in the nineteenth century indicted a gaslight company president for nuisance by causing "unwholesome smells, smokes and stenches, rendering the air corrupt, offensive, uncomfortable and unwholesome." Often, indictments such as these were dismissed when the defendant demonstrated that the business was essential to the public and was conducted using the best known technology of the time.

However, in one case in which the defendant plant or factory failed to show that nauseating fumes and other pollutants were a necessary consequence of proper plant operation, a later criminal nuisance con-

31. Id. As can be surmised, this draconian criminal sanction must have been an effective deterrent to many potential polluters living in thirteenth century London!
32. Id.
33. Id.
34. People v. The President, and C., of the New York Gas-Light Co., 6 Lans. 467, 467-68 (1st Dep't 1872).
35. The "best technology available" defense was successful in New York Gas-Light Co., a criminal case, in which the appellate court reversed the trial court's judgment and drew a distinction between the civil and criminal aspects of the case by saying, "It may be that private persons can maintain an action for damages, ... but the people are barred by the act which their legislature have [sic] passed from making a public complaint by an indictment for such a cause, while the defendants conduct their business with skill, science and care." Id. at 468 (emphasis added; citations omitted).
viction was upheld. An illustration of the use of a municipal smoke control ordinance is found in a 1937 misdemeanor prosecution by the New York County District Attorney against the Cunard Steamship Line. The criminal informations charged, in substance, that two of the Cunard's steamships, the Queen Mary and the Laconia, had illegally discharged smoke into the air from their respective stacks while docked in New York Harbor. The Manhattan County Criminal Court found the Cunard Line guilty of violating both criminal charges under the smoke control ordinance. However, this early environmental prosecutor's victory was short-lived. The conviction against the Cunard Line was reversed by the New York Court of Appeals, which reasoned that the Cunard Line had used the best available technology to limit emissions from each of the steamship's stacks. Not surprisingly, there were few other published accounts of attempted prosecutions of violators of smoke control ordinances or similar air pollution laws.

During the 1940s and 1950s, air pollution worsened in America's industrialized areas, and many urban residents began to suffer lung and other respiratory related health problems. One of the most notorious examples occurred in the western Pennsylvania coal town of Donora in 1948, where almost half of its residents fell ill and twenty individuals died due to the effects of air pollution. Nonetheless, for the next twenty years, little was done at the federal, state, or local levels of government to help alleviate this increasingly pervasive public health problem. Although Congress increased state and local funding for air pollution research and for enforcement, air pollution and its accompanying public health effects continued to worsen.

It was not until the CAA was passed in 1970 that Congress made its first comprehensive attempt to regulate air pollution on a national scale. The formidable goals of the CAA are to protect and enhance the quality of the nation's air. Main components of the statute include implementation of National Ambient Air Quality Standards

36. People v. Schissel, 84 N.Y.S.2d 436 (N.Y. App. Div. 1948) (upholding conviction for violation of then-existing N.Y. PENAL LAW § 1530 (public nuisance); also upholding conviction of defendant based on proof that he was merely person in charge of the plant producing fumes, noise and glare, id. at 437).
37. People v. Cunard White Star, Ltd., 21 N.E.2d 489 (N.Y. 1939) (ordinance in question was then-existing NEW YORK, N.Y., CODE OF ORDINANCES, ch. 20, art. 12, § 211 (1936) (sanitary code relating to smoke discharge).
38. Cunard White Star, 21 N.E.2d at 489.
39. Id.
40. Id. The defendant did not challenge its conviction on a third count relating to discharging smoke from a nearby chimney.
42. Id.
43. Id.
44. Id.
46. 42 U.S.C § 7401(b) (1988).
("NAAQS") for priority air pollutants, and of National Emission Standards for Hazardous Air Pollutants ("NESHAPS") by the Environmental Protection Agency ("EPA"). States are required to develop State Implementation Plans ("SIPs") that set emission standards for stationary (industrial plants) and mobile sources (vehicles) of pollution that meet NAAQS and NESHAPS. In addition to providing civil regulatory standards and accompanying sanctions, the CAA included Congress's first attempt to draft a comprehensive body of federal environmental crimes to help ensure regulatory compliance. Yet, the CAA's original criminal enforcement section was weak and rarely used by federal prosecutors; for example, it authorized misdemeanor, rather than felony, prosecutions against violators and provided for only nominal criminal sanctions.

During the next twenty years, the criminal provisions of the CAA remained unchanged. Not surprisingly, few criminal cases under the CAA were brought by federal prosecutors during this period. Instead, federal prosecutors investigated criminal violations under other environmental statutes, such as RCRA and CWA, in which Congress had enacted strict felony criminal sanctions for "knowing endangerment" crimes, and, for many other environmental felonies, had decreased the burden of proving the accused's mens rea or criminal intent.

In 1990, Congress finally acknowledged that the strict criminal sanctions and relaxed mens rea requirements found in other federal environmental statutes should be applied to the CAA. For instance, almost all "knowing" violations under the 1990 Amendments became felony-level crimes. Congress also added a felony-level crime of "knowing endangerment" for a knowing release of a hazardous air pollutant that endangers another person. This "knowing endangerment" crime, purposely modelled after similar provisions found in RCRA and CWA, is committed under the CAA when:

50. 42 U.S.C. § 7413(c) (1970). It was not until RCRA was enacted in 1976 that violations rose to felony status, and even then prosecution was difficult. See supra notes 19-25 and accompanying text.
any person knowingly releases into the ambient air any of the 189 hazardous air pollutants listed in section 112 of the Act or an extremely hazardous substance under section 306(2) of CERCLA and who knows at the time of the release that he or she places another person in imminent danger of death or serious bodily injury.56

The strong sanctions for this “knowing endangerment” crime are similar to those found under its counterparts in RCRA and CWA.57 Any person found criminally culpable is subject to a fine of up to $250,000, and up to fifteen years in federal prison.58 Any organization found criminally culpable is subject to a fine of up to $1 million.59 Congress endorsed harsh criminal penalties for these air polluters because it specifically recognized the serious threat that such conduct can pose to human health.60

II. ANALYSIS OF THE ELEMENTS CONSTITUTING THE CRIME OF “KNOWING ENDANGERMENT” UNDER THE CLEAN AIR ACT AMENDMENTS OF 1990

Although Congress lifted many of the key terms in the “knowing endangerment” provision of the CAA Amendments directly from the “knowing endangerment” crime provisions in RCRA and CWA, the CAA Amendments’ provision contains some specific nuances for federal courts and prosecutors. Federal courts will have to grapple with the meaning of a number of terms before prosecution of the crime of “knowing endangerment” can be successfully and consistently utilized under the CAA Amendments.

A. A “Person”

Under the general definition section of the CAA, the statutory meaning of the term “any person” is expansive and includes natural persons, business and government entities, and officers, agents, and employees of such entities.61 In addition, under the general criminal enforcement section of the CAA, the term “any person” includes any “responsible corporate officer.”62 This inclusion of “any responsible corporate officer” expands the scope of individuals who can be subject

57. See supra notes 19-27 and accompanying text regarding “knowing endangerment” provisions of RCRA and CWA.
61. Under the CAA, a “person” includes “an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.” 42 U.S.C. § 7602(e) (1988).
to criminal prosecution for CAA violations. Where applicable, the provision authorizes a federal prosecutor to charge corporate officers or other senior management personnel within the targeted corporation even when these individuals did not directly participate in the charged criminal conduct.63

In the prosecution of environmental crimes, the "responsible corporate officer" doctrine has two concerns: fairness and deterrence. Prosecutors view the doctrine as fair because the defendant official was often in a position to prevent the violation, especially when the subordinate's conduct is within the officer's area of supervision or control.64 Under these circumstances, officials should not be able to delegate criminal responsibility for the conduct of their subordinates. The deterrent value of the doctrine is best seen when it would be easy to prosecute the plant manager or middle-level corporate employee who caused the violation. But the deterrent effect of such a prosecution on the corporation would be minimal unless a corporate officer or other senior manager, whose policies or direct orders led to the criminal environmental conduct, is also held accountable.65

The "responsible corporate officer" doctrine has been applied successfully in the federal prosecution of Johnson & Towers, Inc. for a hazardous waste crime under RCRA.66 In United States v. Johnson & Towers, Inc., the Third Circuit affirmed the trial court that found two managers of a waste disposal operation criminally culpable of knowingly disposing of hazardous waste without a permit.67 The court held that the jury could infer a defendant's degree of knowledge of the requirement of a hazardous waste permit based, in part, upon his "requisite responsible position" within the corporation.68 Although a corporate officer's position by itself is not sufficient proof for a knowing violation, the application of the "responsible corporate officer" doctrine allows a jury to infer criminal culpability based upon the officer's position and other direct or circumstantial evidence submitted by the prosecutor at trial, such as evidence of information provided to those defendants on prior occasions.69

63. See infra notes 66-71 and accompanying text.
64. There is a distinction between a "responsible" corporate officer and a corporate officer, such as a vice-president of human resources, who may not ordinarily be held accountable. The distinction is not a clear one, and is discussed infra notes 66-71 and accompanying text.
65. See United States v. Johnson & Towers, Inc., 741 F.2d 662, 664-65 (3d Cir. 1984), cert. denied sub. nom. Angel v. United States, 469 U.S. 1208 (1985) (owners and employees are covered under RCRA's criminal provision, but employees "can be subject to criminal prosecution only if they know or should have known that there had been no compliance" with RCRA's permit requirement).
66. Id. at 662.
67. Id. at 664-65.
68. Id. See also United States v. MacDonald & Watson Waste Oil Co., 933 F.2d 35, 55 (1st Cir. 1991).
69. Johnson & Towers, 741 F.2d at 670.
Because the CAA Amendments expressly provide for criminal liability of a "responsible corporate officer," it may appear that a corporate officer who fails to prevent the commission of a "knowing endangerment" crime that was within his or her area of supervision may be successfully prosecuted, even though he or she did not directly participate in the charged criminal conduct. However, Congress has limited the potential scope of prosecutions of such "knowing" violations under CAA. For a "knowing" violation, the statutory definition of "person," which includes a "responsible corporate officer," explicitly excludes an employee who is "carrying out his normal activities and who is acting under orders from the employer." While corporate officers as well as employees who perform their "normal activities" and who act under orders from their "employer" would be immune from prosecution. The legislative history suggests that this limitation reflected congressional concerns about the expansive scope of "persons" in corporate management who could be found criminally culpable of CAA's severe sanctions for a "knowing" crime.

Specifically, the Senate Minority feared that prosecution under these "knowing" provisions would somehow lead to widespread criminal convictions of responsible environmental managers for good-faith or technical violations. While it is reasonable to surmise that the intent of Congress behind this provision was to protect lower-level management and line employees who are ordered by their superiors to perform the charged environmental violation, the statute and the legislative history fail to provide any insight to prosecutors about how high up the "corporate ladder" this statutory provision may apply. Although this provision certainly will not shield high-ranking corporate officers, at least one commentator has suggested that even a senior management official may argue that the charged criminal conduct was part of his or her normal activities under the orders of his or her superior. If the officer meets this threshold, a prosecutor must establish that the release was both "knowing and willful," a burden of proof that is often insurmountable. Until more definitive guidance is provided by the courts, even senior corporate management personnel will contend that the "normal activities" exception is applicable to them. This statutory limitation, unlike any found in other federal environmental statutes, categorizes the degree of the prosecutor's bur-

71. See generally S. REP. No. 228, supra note 29.
74. Id. at 384.
den of proof based upon a corporate employee's activities and status within the organization.  

B. **Who “Knowingly” Releases**

Neither the term “knowing” nor the term “willful” is defined in the CAA Amendments of 1990. However, what constitutes “knowing” conduct under the CAA was interpreted by the Sixth Circuit in *United States v. Buckley*, which affirmed the conviction of a defendant charged with “knowingly” violating asbestos emission provisions. In that case, the defendant contended that he had no knowledge of the statute and therefore could not be convicted of knowingly violating the CAA. The court held that the prosecutor need only show that the defendant knew of the emissions themselves and had knowledge of the statute or the hazards the emissions impose.

This reasoning is similar to the manner in which the term “knowingly” has been interpreted in other environmental statutes. For instance, to show “knowing” conduct under RCRA, the majority of federal circuits concur that the prosecution need only prove generally that the defendant committed the offensive conduct, not that the defendant knowingly violated the law. Similarly under CWA, the Ninth Circuit in *United States v. Weitzenhoff* interpreted “knowingly” as only requiring the prosecutor to prove that the defendants were aware that they were discharging the pollutants at issue; there was no requirement to prove that the defendants knew they were violating the statute or permit. Thus, the jury was instructed that the prosecutor need not show that the defendants knew that their acts or omissions were unlawful. The Supreme Court has not ruled on the definition of the term “knowingly” in an environmental case. Nonetheless, the Court has acknowledged this lower standard of proof for other public welfare statutes.

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75. *Id.* at 386-88. The new definition of “person” under the Clean Air Act Amendments “shall not include an employee who is carrying out his normal activities and who is not a part of senior management personnel or a corporate officer [and except for knowing and willful violations] shall not include an employee who is carrying out his normal activities and who is acting under orders from the employer.” 42 U.S.C. § 7413(h) (Supp. V 1993).
76. 934 F.2d 84 (6th Cir. 1991).
77. *Id.* at 86-87.
78. *Id.* at 87-88.
81. 1 F.3d 1523 (9th Cir. 1993).
82. *Id.* at 1529.
83. *Id.*
Applying this standard to the "knowledge" element of a "knowing endangerment" crime under the CAA, the prosecutor need only show that the defendant knew that he or she was releasing a noxious air emission into the ambient air. The prosecutor is not required to show that the defendant knew that the air emission was listed as a hazardous air pollutant under section 112 of the CAA, or that it was listed as an extremely hazardous substance under section 306 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").

As with other environmental statutes designed to protect the public welfare, courts will impose upon a prosecutor only a general intent standard for proving "knowing" criminal conduct. However, if the defendant shows that he or she released the hazardous air emission while carrying out his or her normal activities under orders from a superior, the prosecutor must meet the additional burden of proving that the release was "willful." The term "willful" is not defined under the CAA, but the legislative history provides that the term "does not require the government to prove that the accused knew that he had violated a provision of the Clean Air Act. . . . It is sufficient for the government to prove the accused's knowledge that he was committing an unlawful act."

The first part of this statement appears to support the view of most federal courts that ignorance of the law is no excuse. However, when read with the second part of the statement, the applicable standard of intent is, at best, unclear. Although the Senate acknowledges that there is no need to show knowledge of the applicable CAA provision, the second part of the statement shows that the prosecutor still must demonstrate that the accused knew the conduct was unlawful. If the prosecutor need not show knowledge of a violation of the CAA, then under what law can he or she show knowledge of unlawfulness? How else can a prosecutor show an accused's knowledge that his or her conduct was unlawful unless the prosecutor shows that the accused has at least some awareness of the legal requirements of the CAA itself? Here, the legislative history provides more questions than answers for federal prosecutors regarding what is "willful" conduct under the CAA.

86. See supra notes 67-69 and accompanying text (discussion of scienter).
88. Id.
While a standard for evaluating "willfulness" under the CAA Amendments is lacking, there is a standard for evaluating whether conduct is "willful" in other, non-environmentally related federal statutes. For example, in *Cheek v. United States*, a criminal prosecution under the Internal Revenue Code, the Supreme Court defined "willful" conduct to require that the prosecutor negate a defendant's good-faith belief that he or she misunderstood the applicable law or standard. The Supreme Court reasoned that the element of willfulness is an exception to the well-settled legal principle that ignorance of the law is no excuse. In *Ratzlaff v. United States*, a more recent criminal prosecution under the Bank Secrecy Act, the government accused the defendant of "willfully" violating its reporting requirement. The Supreme Court held that the government had to prove that the defendant knew that the filing of such reports was legally mandated. In reaching this conclusion, Justice Ginsberg held that there should be a presumption against treating statutory terms as surplusage. To determine if criminal conduct is "willful," the government must prove some additional element of knowledge on the part of the defendant, other than the general-intent standard, in the case of a "knowing" violation.

It is uncertain what comprises the substance of this additional element needed by the federal prosecutor to prove a "knowing" and "willful" air emission violation under the CAA's "knowing endangerment" statute. It will be up to the federal courts to clarify the parameters of this mental state. In light of the contradictory legislative guidance on the meaning of "willful" conduct under the CAA and the Supreme Court's analysis of "willful" conduct in other criminal statutes, defense counsel best serves his or her client by contending that some knowledge of the CAA must be shown on the part of the accused to sustain a conviction for a "knowing and willful" violation. This additional burden upon the prosecutor to prove willful conduct has been characterized as encouraging senior and mid-level managers to remain ignorant of specific CAA provisions. Although a manager's ignorance cannot provide a shield from criminal culpability under the general-intent "knowing" standard, he or she may nonetheless avoid criminal culpability under the specific-intent element of a "knowing and willful" standard. Certainly, a corporate policy discouraging in-house training on compliance with the CAA is contradictory to congressional intent as evidenced in its legislative history, which encour-

90. Id.
91. 114 S. Ct. 655 (1994).
92. Id. at 657.
93. Id. at 659-63.
94. Id. at 658-59.
95. Id. at 659-60.
ages corporate self-monitoring and overall corporate environmental awareness.\textsuperscript{97}

This necessity of proving "willful" conduct may also hinder environmental criminal investigations under the CAA. Often, the middle-level corporate managers cut costs on environmental compliance and order lower-level employees to perform conduct that may violate an environmental statute.\textsuperscript{98} A criminal investigation of a corporation for such conduct often begins with the questioning of these lower-level employees who are immunized by the prosecutor in exchange for testimony regarding the lack of environmental training and compliance at the targeted corporation. Once apprised by counsel of the government's burden, an employee who acted in his normal job capacity under orders from a superior may have little incentive to cooperate with law enforcement officers because the employee may believe that he or she is virtually immune from prosecution anyway. The employee may believe he or she has little to gain and much to lose by cooperating with the prosecutor.

\textbf{C. Into the "Ambient Air"}

Yet another obstacle for the federal prosecutor under the CAA is the scope and meaning of the term "ambient air." Under the CAA, the EPA implemented a restrictive interpretation of the term "ambient air" that includes only that portion of the atmosphere, external to buildings, to which the general public has access.\textsuperscript{99} If this interpretation were literally applied and coupled with the "knowing endangerment" provision of the CAA, prosecutors would be limited to investigating knowing releases of air pollutants into the atmosphere outside a facility or building of the workplace, effectively eliminating threats of prosecution to employers unless their employees worked outdoors in public areas.\textsuperscript{100} At least one legal commentator has suggested that the inclusion of the term "ambient air" under the "knowing endangerment" provision was simply one of the many congressional drafting errors in the final version of the 1990 Amendments.\textsuperscript{101} This conclusion is supported, in part, by the fact that the affirmative defenses provided in the statute to a "knowing endangerment" crime make no distinction between hazards from inside or


\textsuperscript{98} Celebrezze et al., \textit{supra} note 1, at 223.


\textsuperscript{100} Literally applying this "outdoors and public places" scenario, forest and park workers, lifeguards, door-to-door sales personnel, traffic and police officers, firefighters, emergency medical personnel, letter carriers, and persons working on road maintenance and trash collection may be the only examples of employees working in places that are both outdoors and public and thus protected.

\textsuperscript{101} Miskiewicz & Rudd, \textit{supra} note 73, at 395.
outside the physical confines of the workplace,\textsuperscript{102} virtually contradicting the administrative interpretation of the statute.

Congress is not alone in using the term “ambient air” inconsistently; the EPA itself does not follow this regulatory definition. For example, the EPA’s own regulations concerning asbestos emission violations are not limited to releases from outside of the confines of buildings and other enclosed structures.\textsuperscript{103} During renovations of older buildings, friable asbestos fibers are commonly released into the air from pipes, ceilings, and floors and then inhaled by the workforce.\textsuperscript{104} The EPA recognized that the inhalation of friable asbestos by humans is carcinogenic and therefore listed asbestos as one of the original hazardous air pollutants under the CAA.\textsuperscript{105} In 1991, the EPA promulgated work practice rules for handling friable asbestos releases during building renovations.\textsuperscript{106} Because friable asbestos, a common insulation material, is often found inside rather than outside the enclosed part of a building, the EPA’s work practice rules protect workers from a hazardous air pollutant that is not necessarily released into the “ambient air.” Thus, the EPA’s decision to regulate a hazardous air pollutant where it is released within a building conflicts with its own agency interpretation of “ambient air,” which specifically excludes the interior of buildings. There is no guidance from EPA explaining this contradictory interpretation of the scope of “ambient air.”\textsuperscript{107}

The possible jurisdictional limits of the prosecution of “knowing endangerment” offenses concerning a hazardous air emission of asbestos is illustrated in the following scenario describing an apartment building renovation.\textsuperscript{108} Three workers are busy at a third-floor bathroom: the plumber, standing in the bathroom, is replacing a heating pipe that is insulated with friable asbestos; the plumber’s assistant is standing near the bathroom window; and a third worker is standing on the fire escape inserting a plate of bathroom glass. Friable asbestos from the heating pipe insulation is inhaled by the plumber and his assistant who are not adequately equipped with breathing apparatus as required under the EPA work practice rules. Because the asbestos was released into the inside rather than the outside air before the plumber and his assistant inhaled the carcinogen, the employer arguably may not be criminally culpable for this life-threatening conduct under the

\textsuperscript{102} 42 U.S.C. § 7413(c)(5)(C) (1990).
\textsuperscript{103} 40 C.F.R. § 61.140 (1991).
\textsuperscript{104} Asbestos is friable when it can be crumbled in a hand when dry: 40 C.F.R. § 61.141 (1991).
\textsuperscript{107} One possible explanation is that the EPA definition of “ambient air” applies to carbon monoxide and ozone, so-called “criterion” air pollutants, but does not apply to asbestos and other hazardous air pollutants that are not “criterion” air pollutants.
\textsuperscript{108} It is estimated that about 30,000 of these renovations are performed in the United States each year. William H. Rodgers, Environmental Law § 3.11, at 278 (1977).
Criminally, it is the third worker who may be least endangered by this release of asbestos. An emission within the confines of the enclosed bathroom poses the greater danger of injury to the plumber and his assistant, especially if there is inadequate ventilation. 

At least in the case of the hazardous air pollutant of asbestos, a prosecutor may argue before a federal court that the EPA, as illustrated under its own work practice rules, has expanded the definition of “ambient air” to include releases within the enclosed confines of the workplace. However, a defendant could raise as a defense that the EPA’s conflicting application of the term “ambient air” makes criminal prosecution under the statute void for vagueness. When a criminal statute fails to provide “fair warning” that the contemplated conduct is forbidden, a defendant cannot be found criminally culpable. In any event, the above inconsistencies in interpretation by Congress and the EPA will only provide further frustration for the federal prosecutor.

D. And “Knows” at the Time of the Release He Places Another in “Imminent Danger”

1. Subjective Belief of the Defendant That He Placed Another Person in Imminent Danger

Even if a federal prosecutor overcomes the problem of proving “willfulness” in a violator performing his or her “normal duties,” and still wishes to pursue a “knowing endangerment” criminal prosecution under the CAA, he or she must still prove that the defendant knew at the time of the release that he or she placed another person in imminent danger of death or serious bodily injury. The legislative history confirms that, for a “knowing endangerment” prosecution, it was the intent of Congress that the “release” and the “endangerment” are separate and distinct elements of knowledge that must be proven at trial.

When Congress drafted the CAA Amendments of 1990, it included in the “knowing endangerment” provision a definition of the mens rea necessary for commission of this element of the offense. The paragraph provides that “the defendant is responsible only for actual awareness or actual belief possessed.” This mens rea requirement

109. See supra note 99 and accompanying text.
110. Miskiewicz & Rudd, supra note 73, at 394.
111. WAYNE LAFAVE & AUSTIN SCOTT, CRIMINAL LAW, § 2.4, at 104-05 (2d ed. 1986).
regarding imminent danger of death or serious bodily injury to another person applies to the defendant's actual and subjective belief as to the consequences of his or her conduct. However, prosecutors may establish this specific intent, the individual's belief or awareness, through the use of circumstantial evidence, including evidence that the defendant took affirmative steps to be shielded from relevant information. The CAA fails to give any further guidance on the meaning of the terms "actual awareness" or "actual belief."

Importantly, however, legislative history in the Senate Conference Report indicates that Congress had relied on CWA's "knowing endangerment" provision when it enacted the legal elements of CAA's "knowing endangerment" provision. As a result, federal case law that has interpreted terms found in CWA such as "actual awareness" or "actual belief" is persuasive evidence of their meaning under the CAA. In a recent prosecution under CWA's "knowing endangerment" provision, the Eastern District of New York held that for the prosecutor to show "actual awareness" or "actual belief," he or she must demonstrate that the defendant is subjectively aware there was a "high probability" that the danger of death or serious bodily injury is a foreseeable consequence of his or her conduct. Under this "high probability" standard, also known as the principle of "conscious avoidance" or "willful blindness," the prosecutor may introduce circumstantial evidence that the defendant deliberately closed his or her eyes to what otherwise would have been obvious to him or her. However, it must be shown that the defendant was actually aware that the release would place another person in imminent danger of death or serious bodily injury. The district court explained that it is not sufficient for the prosecutor to prove that the defendant was aware that the imminent danger was merely a "potential consequence" of the defendant's act.

Applying this standard to the CAA, the prosecutor would have to prove that the defendant, at the time of his knowing release of an air emission into the ambient air, actually knew there was a "high probability" that his or her conduct would endanger another person. This "high probability" mens rea standard is a dilution of the common-law requirement that a person have actual knowledge of the ma-

115. Korpics, supra note 79, at 460.
118. For an analogy with CWA, see United States v. Hooker Chems. & Plastics Corp., 749 F.2d 968, 988-89 (2d Cir. 1984).
120. Id.
121. Id.
122. Id.
terial elements of the crime committed. Instead, it provides that intentional ignorance of the facts can be used to demonstrate actual awareness or belief. This doctrine therefore prevents corporate officers or senior managers from deliberately closing their eyes to what is otherwise obvious to avoid responsibility for the criminal conduct of their subordinates.123

2. Objective Evidence of Actual Risk of Imminent Danger to Another Person

Even if the prosecutor proves, through circumstantial and direct evidence, that the defendant subjectively was aware of a "high probability" that his or her conduct endangered another person, the prosecutor must then show, as a matter of fact, that an actual risk of imminent danger had befallen the victim. "Imminent danger" is not defined under the CAA Amendments. It is also not defined statutorily under RCRA or CWA. However, federal courts often look to precedent when an identical term has been interpreted by a federal court.124 In United States v. Protex Industries, Inc.,125 a "knowing endangerment" prosecution under RCRA, the trial court indicated that the term "imminent danger" represents an objective measure of actual risk, in contrast to the subjective measure used in evaluating the defendant's "knowledge."126 The trial court went on to define "imminent danger" as the "existence of a condition or combination of conditions which could reasonably be expected to cause death or serious bodily injury unless the condition is remedied."127

The term "imminent danger" comprises two distinct elements, imminence and danger. The "danger" element is the more problematic of the two because it can apply to two very different things: the actual harm or the risk of the harm. As interpreted by federal courts under other environmental statutes, the term "danger" anticipates the prevention of harm and, therefore, only requires the risk or threat of harm rather than actual harm.128 Accordingly, in Protex, the trial court defined the term "danger" as a "reasonable expectation of death or serious bodily injury."129 This trial court instruction is in accord with the interpretation of risk of harm under other environmental statutes.

124. Hooker Chems., 749 F.2d at 988-89.
125. 874 F.2d 740 (10th Cir. 1989).
126. Id. at 744.
127. Id.
128. Korpics, supra note 79, at 463-64. The significance of this interpretation becomes clear when one considers that environmental exposures to hazardous substances, such as asbestos, often do not result in immediate harm to persons, but harm that may have a long latency period.
129. Protex Indus., 874 F.2d at 744.
statutes, namely that “reasonable expectation” depicts risk and “death or serious bodily injury” depicts harm.\(^\text{130}\)

With “danger” referring to the risk of harm rather than to the harm itself, it follows that “imminent” will also refer to the risk rather than to the harm itself. In the scenario of the apartment renovation and the release of asbestos, “imminent” would apply to the onset of the risk, the inhalation of friable asbestos, rather than the onset of any asbestos-related disease. For instance, in Protex, the Department of Justice argued that a present danger of future cancer risk satisfies the “imminence” test under RCRA, and this instruction was given to the jury at trial.\(^\text{131}\) On appeal, the Tenth Circuit did not reach the issue of future cancer risk. The court found “serious bodily injury” under the “knowing endangerment” provision of RCRA because the workers had suffered damage to the central nervous system as a result of the employer’s misconduct in the handling of hazardous waste.\(^\text{132}\)

**E. Of “Serious Bodily Injury”**

In comparison to the other elements of a knowing endangerment crime, the extent of serious bodily injury necessary to meet the threshold is relatively easy to determine because Congress defined the term “serious bodily injury” to include:

(a) bodily injury which involves a substantial risk of death;

(b) unconsciousness;

(c) extreme physical pain;

(d) protracted and obvious disfigurement; or

(e) protracted loss or impairment of the function of a bodily member, organ, or mental faculty.\(^\text{133}\)

Congress lifted CAA’s definition of “serious bodily injury” directly from the “knowing endangerment” provision of RCRA.\(^\text{134}\) In 1980, when Congress enacted the “knowing endangerment” provision under RCRA, it had taken the definition of “serious bodily injury” directly from the Proposed Criminal Code Reform Act.\(^\text{135}\) The Proposed Criminal Code Committee Report had stated that the list of conditions constituting “serious bodily injury” is not exclusive.\(^\text{136}\) Therefore, types of physical injury resulting from a hazardous air emission...
release other than those listed may qualify as "serious bodily injury" under this statutory criterion.

Returning to our example of inhaled asbestos, a person who inhales a release of asbestos and contracts lung cancer should meet the standard of suffering "serious bodily injury" and thus subject the "responsible corporate officer" to a criminal prosecution.\textsuperscript{137} Since lung cancer involves bodily impairment, extreme physical pain or a substantial risk of death, it definitely falls under the category of serious bodily injury.\textsuperscript{138} The question remains, however, whether the \textit{risk} of cancer constitutes "serious bodily injury." In \textit{Protex}, the Tenth Circuit sidestepped the issue of whether the increased \textit{risk} of cancer constitutes "serious bodily injury." It will be the role of the federal courts to further define its scope.

Undoubtedly, releases of hazardous air pollutants in the workplace causing \textit{immediate} injuries will meet the requirements of sustaining serious bodily injury. As for releases of carcinogens such as asbestos that do not manifest until years after exposure, it is uncertain how the federal courts will decide. However, the fact that the federal district trial court in \textit{Protex} sent such an instruction to the jury, and that it was deliberated upon, clearly illustrates that such concepts are within the abilities of the jury and the federal courts to understand.

\section*{III. Federal Prosecution Under the Occupational Safety and Health Act of Hazardous Air Pollutant Releases Inside the Workplace}

In the future, the meaning of many of the above key terms under the CAA "knowing endangerment" provision, such as the term "ambient air," will be litigated in federal court. In the interim, employees endangered by knowing releases of hazardous air emissions inside the physical confines of the workplace may not be able to prosecute this crime in the federal courts under the CAA Amendments. An apparent alternative to prosecuting under the CAA Amendments is to prosecute under OSHA, the federal statute that was enacted to ensure worker safety.\textsuperscript{139} In 1970, Congress enacted OSHA in an effort to ensure safe working conditions for every man and woman in the na-

\textsuperscript{137} The criminal culpability of the "responsible corporate officer" under federal environmental statutes is a different matter from his or her civil liability under state law. For example, New York does not recognize claims based on speculative injuries (so-called "cancerphobia"), but does recognize claims for medical monitoring if based on professional medical judgment. \textit{See} Askey v. Occidental Chem. Corp., 477 N.Y.S.2d 242, 247 (App. Div. 1984), and Gerardi v. Nuclear Util. Servs., Inc., 566 N.Y.S.2d 1002, 1004 (Sup. Ct. 1991).

\textsuperscript{138} \textit{Korpics, supra} note 79, at 475 n.194, \textit{citing P. AHMED, LIVING AND DYING WITH CANCER, § 1-10} (1981) (physical and psychological effects of cancer in human beings).

To reach this objective, the Secretary of Labor sets mandatory "occupational safety and health standards" for the workplace. Compliance with these standards is secured by imposing civil and criminal sanctions for their violation.

Unfortunately, OSHA has been an abject failure in punishing criminally culpable employer conduct since, with respect to criminal sanctions, OSHA is relatively powerless. The statute provides only modest sanctions for criminal violations of its regulatory standards and then only where such a violation results in an employee's death. For example, OSHA provides for criminal fines of $10,000 and prison terms of up to six months for willful violations of OSHA standards that result in an employee's death.

Due to the modest penalties available and the requirement that a violation of OSHA standards results in an employee's death before those penalties can be imposed, federal criminal prosecutions under OSHA have been rare. Between 1977 and 1983, just fifteen cases were referred to the Department of Justice for criminal prosecution. Although legislation has been proposed to increase criminal penalties and create new OSHA criminal offenses, it is uncertain when such laws will be enacted by Congress.

Employees endangered by releases of air pollutants inside the workplace will be frustrated by the limitations of federal criminal prosecution under OSHA or the CAA Amendments. As a result, they may turn to state prosecutors to seek criminal prosecution under state environmental and generic criminal statutes. The success of their search for justice may depend upon the willingness of state prosecutors and the state courts to answer their call.

IV. STATE PROSECUTION OF HAZARDOUS AIR POLLUTANT RELEASES IN THE WORKPLACE THAT ENDANGER EMPLOYEES

A. The Role of State Prosecutors in Ensuring Worker Safety

During the past decade, state prosecutors, especially in the industrialized northeast, have taken an active role in pursuing environmental criminal cases that directly impact upon worker safety. In 1985, the New York State Attorney General created a specialized enforcement

145. Id. at 267.
146. Id.
unit called the Environmental Protection Bureau. A principal focus of this unit has been the criminal prosecution of employer conduct concerning hazardous substances that endanger worker safety.

The increased interest of the New York State Attorney General and other state prosecutors in worker safety and environmental crime has arisen for at least two reasons. One reason stems from the ineffectiveness of OSHA in criminally punishing employer conduct that endangers the health of the workforce of a state where such injury commonly occurs. In New York State, occupational disease is the fourth leading cause of death. Between 1983 and 1985, there were at least 735 toxic chemical accidents which killed at least twenty-two people, injured at least 267, and forced thousands of employees and nearby residents to evacuate. Clearly, such pervasive workplace endangerment mandates the use of state prosecutions accompanied with severe criminal sanctions.

A second reason for increased state prosecutor involvement was the encouragement provided by state courts in the early 1980s that imposed severe sanctions against corporate officers for criminally culpable conduct. In 1983, an Illinois State Court imposed a twenty-five-year term of imprisonment on a film recovery company president, plant manager, and foreman for the death of an employee whose job was to stir unventilated tanks of sodium cyanide. This case was the first under state law in which corporate officers had been convicted of murder for acts or omissions related to their status and responsibilities in the hierarchy of a corporation.

Due to the many legal hurdles federal prosecutors may face under the CAA Amendment’s “knowing endangerment” provision, it is unlikely that there will be many federal criminal prosecutions of hazardous air releases within the confines of an enclosed workplace. State prosecutors may be asked to fill this void in enforcement of environmental and occupational safety standards in the workplace. Unfortu-

148. Id. at 284.
150. Abrams, supra note 147, at 285 (OSHA had issued citations to the violating company for 13 years prior to state prosecution for endangering workers, with no results).
151. Id. at 284.
nately, state prosecutors may face their own unique set of legal challenges if they attempt to fill this important role.

The first of these legal challenges some state prosecutors may face is determining whether OSHA preempts the state from prosecuting employers for conduct that is regulated by OSHA. Under the Supremacy Clause of the U.S. Constitution, federal law may preempt state law in one of three ways:

1. It may preempt state law expressly when Congress explicitly provides for preemption in a statute.
2. It may preempt state law impliedly when the federal law is so comprehensive that there is no room for any supplemental state law.
3. It may preempt conflicting state law when compliance with both federal and state law is a physical impossibility.

In New York, Illinois, and some other highly industrialized states, OSHA preemption has been raised and rejected by the state courts as a defense to state prosecution. For example, in Illinois, pre-emption was raised by the defendant officers of Chicago Magnet Wire Corp. in a state environmental criminal prosecution brought by the State Attorney of Cook County, Illinois. The traditional penal law count of reckless conduct, in pertinent part, charged that the defendants had unreasonably exposed forty-two employees to "poisonous and stupefying substances" in the workplace and had prevented those employees from protecting themselves by "failing to provide necessary safety instructions and sundry health monitoring systems."

The trial court dismissed the indictment, holding that OSHA preempts the state from prosecuting employers for conduct that is governed by federal occupational health and safety standards. The Supreme Court of Illinois, however, reversed the judgments of the trial and appellate courts and allowed the conviction of the corporation and its named officers.

In People v. Pymm, a New York State environmental criminal prosecution brought jointly by the State Attorney General and the Kings County District Attorney, the defendants, Pymm Thermometer

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155. OSHA does not preempt state action in areas where no standard is in effect. 29 U.S.C. § 667(a) (1988). See also Abrams, supra note 147, at 285-87.
156. U.S. CONST. art. VI, § 2.
161. Id. at 963.
162. Id.
163. Id.
Corporation president William Pymm, plant manager Edward Pymm, and a foreman, also raised OSHA preemption as a defense. In *Pymm*, maintenance workers were ordered by their employer to recover mercury by smashing defective thermometers in a cellar factory that contained no effective ventilation.\(^{165}\) One of the workers, Vidal Rodriguez, was diagnosed as suffering mercury vapor poisoning and brain damage as a result of performing these work duties for the corporation.\(^{166}\)

After a jury trial, the defendants were convicted of the generic state penal crimes of Assault in the First Degree, Assault in the Second Degree, Reckless Endangerment in the Second Degree, Conspiracy in the Fifth Degree, and Falsifying Business Records in the First Degree.\(^ {167}\) The trial court, however, set aside the verdict, holding that the uniform enforcement scheme of OSHA had preempted the state from enforcing stricter workplace standards through criminal prosecution and that the evidence was legally insufficient to support the conspiracy and reckless endangerment counts.\(^ {168}\)

The Appellate Division reversed the trial court and reinstated the convictions.\(^ {169}\) The court held that, in matters of health and safety, the state power to prosecute criminal conduct is not restricted in the absence of compelling congressional direction and that under OSHA, there is no evidence of any such intent.\(^ {170}\) The goals of the state criminal law complement rather than conflict with the goal of OSHA in ensuring worker safety.\(^ {171}\) The New York State Court of Appeals affirmed the decision of the Appellate Division.\(^ {172}\) The subsequent application for a writ of certiorari was denied by the U.S. Supreme Court.\(^ {173}\)

Even if OSHA does not preempt state criminal prosecution of conduct that endangers employees, there remains the question of what types of state criminal laws can be used to effectively prosecute hazardous air pollutant releases that endanger the health and safety of the workers and other persons in the workplace. In many states, such as New York, there are a number of generic and specifically tailored criminal statutes that may be effectively utilized by state prosecutors.

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165. Of course the defendants' own offices were separately enclosed and properly ventilated. Abrams, supra note 147, at 285.
166. Id.
167. N.Y. Penal Law §§ 120.05(4), 120.20(1), 175.10, 105.00 (McKinney 1988).
169. Id. at 876.
170. Id. at 873-74.
171. Id. at 876.
B. **Traditional State Criminal Law Statutes That Can Complement or Surpass the Federal Clean Air Act Crime of “Knowing Endangerment” in Ensuring Worker Safety**

State penal law statutes have been used successfully in New York and other industrialized states in prosecuting corporate officers and other senior management personnel who have released hazardous air pollutants inside the workplace that endangered or injured employees. Penal law statutes can be a powerful prosecutorial weapon for punishing such criminal conduct that may not otherwise be successfully prosecuted under the federal provisions of the CAA Amendments.

There are a number of reasons for the increased use of traditional state penal law in lieu of, or as a complement to, specifically tailored criminal environmental statutes. Many state and local prosecutors have relied upon state penal law to avoid confronting the technical regulations that underlie many state environmental statutes. Prosecutors, as well as judges and juries, are often more comfortable with traditional “bread and butter” crimes such as assault, larceny, or forgery, which demystify an environmental trial. These crimes, in contrast to many environmental offenses, are also accompanied by a well-established body of case law upon which to rely. Although the stigma attached to a corporation or officer charged with an environmental offense may be considerable, if the same indictment charges traditional criminal offenses, the stigma and accompanying deterrence value increases accordingly.

An illustration of the scope and effect of such a state penal law prosecution involves the tragic death of an Illinois worker named Steven Golab. In 1983, Steven Golab, a fifty-nine-year-old illegal immigrant from Poland, had worked for a year stirring tanks of sodium cyanide at the Film Recovery Services plant in Elk Grove, Illinois. Film Recovery employees, many of whom were illegal immigrants, used a cyanide solution to extract silver from used x-ray and photographic film. Stephen Golab and many of his fellow employees who worked at the cyanide tanks had experienced headaches, nausea, and burning skin from inhaling the toxic cyanide fumes.

On February 10, 1983, after Golab had disconnected a pump on one of the tanks and stirred the cyanide contents of the tank with a rake, he became dizzy and then fainted. Golab’s body trembled and his mouth foamed as he went into a convulsion. He was rushed to the hospital where he died later that day. An autopsy determined that

175. Id. at 1092.
176. Id.
177. Id.
178. Id.
179. Id.
180. Id.
he had died of cyanide poisoning from his inhalation of these toxic fumes.\(^{181}\)

After the Occupational Safety and Health Administration ("Administration")\(^ {182}\) had conducted an investigation of this worker fatality, it fined the plant $4855 for twenty safety violations surrounding this egregious conduct, but later halved the penalty.\(^ {183}\) The Illinois State Attorney for Cook County, however, took a much more aggressive stance, fining the company $24,000 and filing state criminal charges against the company and its officials.\(^ {184}\)

On June 14, 1985, three of the corporate officials of Film Recovery Services were convicted by the Cook County court of murder for Stephen Golab's death.\(^ {185}\) The state court found that three of the corporate officials, Steven O'Neil, Charles Kirschbaum, and Daniel Rodriguez, officers and high managerial agents of Film Recovery, had on February 10, 1983, knowingly created a strong probability of Golab's death.\(^ {186}\) In substance, the corporate officers failed to tell Golab that he was handling a dangerous substance and failed to provide adequate training and safety equipment for the performance of his duties.\(^ {187}\)

This environmental prosecution for worker homicide resulting from a hazardous air release using a penal statute provided an impetus for other states. For instance, in a small factory located in Brooklyn, New York, the Pymm Thermometer Corporation was manufacturing thermometers.\(^ {188}\) To the alarm of OSHA, in the unventilated basement of this factory, workers recovered mercury by smashing broken thermometers.\(^ {189}\) The employees who inhaled these mercury fumes suffered a number of physical maladies.\(^ {190}\) The corporation's president and a number of corporate officials were convicted under four traditional criminal provisions, Reckless Endangerment in the Second De-

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181. Id.
182. The Occupational Safety and Health Administration was established by OSHA, 29 U.S.C. § 671 (1988).
184. Id.
185. O'Neil, 550 N.E.2d at 1091 (Banks, J., sitting without a jury). Murder is defined under Illinois state law as follows:

A person who kills an individual without lawful justification commits murder if, in performing the acts which cause the death: he knows that such acts create a strong probability of death or great bodily harm to that individual.

186. O'Neil, 550 N.E.2d at 1091.
187. Id. The officials were also convicted of 14 counts of reckless conduct involving 14 other Film Recovery employees. ILL. REV. STAT. ch. 38, para. 12-5(a) (1981).
189. Id.
190. Id.
gree, Assault in the Second Degree, Falsifying Business Records in the First Degree, and Conspiracy in the Fifth Degree.\textsuperscript{191}

Of particular interest were the convictions for reckless endangerment and assault.\textsuperscript{192} In proving the reckless endangerment charge, the prosecutor showed that the defendants knew there was a substantial risk of injury to one or more factory workers, and that the corporation’s officers unreasonably disregarded that risk. These elements were demonstrated by not only the lack of protective wear provided for the workers, but, more importantly, by the fact that the corporate officers provided safety equipment for themselves.\textsuperscript{193} The mercury poisoning suffered by one worker, Vidal Rodriguez, indicated that inhalation of mercury vapors can cause serious physical injury.\textsuperscript{194}

The evidence at trial also showed that the corporate officers committed assault in the second degree by recklessly allowing an employee, Vidal Rodriguez, to inhale the mercury vapors during the mercury reclamation process, causing him to suffer a number of serious physical ailments.\textsuperscript{195} In \textit{Pymm}, physical injury was proven by medical evidence showing that Rodriguez had suffered mercury poisoning by inhaling the toxic vapors.\textsuperscript{196} The dangerous instrument with which Rodriguez had been assaulted was mercury, a hazardous substance as lethal as any assault rifle or handgun when handled without proper safety equipment.\textsuperscript{197}

\textit{Pymm} represents the first penal law conviction involving workplace exposure to toxic chemicals in New York State history.\textsuperscript{198} This will not be the last such conviction as more local district attorneys throughout New York State use traditional criminal laws to prosecute corporate environmental safety misconduct that endangers the health of employees in the workplace.

\begin{itemize}
\item \textsuperscript{191} \textit{Id.} at 871.
\item \textsuperscript{192} \textit{Id.} Paper crimes such as false filings, forgery and similar penal law offenses can also be used in appropriate cases. For examples of New York statutes, see N.Y. \textsc{Penal Law} §§ 170.00-170.30 (McKinney 1988) (forgery and related offenses) and §§ 175.00-175.45 (McKinney 1988) (offenses involving false statements).
\item \textsuperscript{193} Abrams, \textit{supra} note 147, at 284-85.
\item \textsuperscript{194} \textit{Id.} Reckless Endangerment in the Second Degree is committed when a person “recklessly engages in conduct which creates a substantial risk of serious physical injury to another person.” N.Y. \textsc{Penal Law} § 120.20 (McKinney 1988).
\item \textsuperscript{195} Abrams, \textit{supra} note 147, at 284-85. Assault in the Second Degree is committed when a person “Recklessly causes physical injury to another person by means of a deadly weapon or a dangerous instrument.” N.Y. \textsc{Penal Law} § 120.05(4) (McKinney 1988).
\item \textsuperscript{196} Abrams, \textit{supra} note 147, at 284-85.
\item \textsuperscript{197} \textit{Id.}
\end{itemize}
C. State Criminal Environmental Statutes That Can Complement or Surpass the Federal Clean Air Act Crime of "Knowing Endangerment" in Ensuring Worker Safety

In addition to traditional penal law crimes, similar to those used in *Pymm*, a state prosecutor may use specifically tailored state environmental criminal statutes against environmental or other worker safety violators. Many of these state environmental statutes mirror or are more stringent than their federal counterparts.

Because the state environmental statutes and accompanying regulations are often complex and arcane, prosecutors have used, where applicable, the mens rea of recklessness\(^\text{199}\) or criminal negligence, which require proof of a lower culpable mental state on the part of the accused. In an environmental prosecution, proving culpable mental state and explaining it to the jury is often biggest hurdle for the state.

In light of the difficulty in proving the accused's culpable mental state, Congress and federal courts have eased the prosecutor's burden of proving mental culpability. Many federal environmental crimes require only proof of general intent, and often the prosecutor need not prove intent for every element of the charged offense. Additionally, federal courts and Congress have authorized the use of evidentiary presumptions, such as those found in the "responsible corporate officer" doctrine and "conscious avoidance" liability to ease the prosecutor's burden of showing mental culpability for corporate officers who are not the "hands on actors" of the charged environmental offense.

It is uncertain whether state courts of industrialized states such as New York will follow the lead set by federal courts in adopting a similar relaxation of mens rea requirements for public welfare offenses such as environmental crimes. In New York, the state Environmental Conservation Law ("ECL")\(^\text{200}\) already provides some of the statutory groundwork. For instance, following the course of federal environmental statutes, the term "person" is broadly defined under the ECL and includes a "responsible corporate officer."\(^\text{201}\) Of particular interest to the state prosecutor in New York is whether the responsible corporate officer doctrine applies to the prosecution of an environmental crime in a state court. At this time, there are no reported decisions of the use of the "responsible corporate officer" doctrine in a state environmental prosecution in New York. At least one legal commentator has reservations about whether the New York state courts would allow a conviction based, in part, upon the responsible corpo-

\(^{199}\) Celebrezze et al., *supra* note 1, at 227-35 (difficulty with "knowing" standard and use of "reckless" standard).


\(^{201}\) N.Y. ENVTL. CONSERV. LAW § 71-1932(3) (McKinney Supp. 1995).
rate officer doctrine where a defendant faced potential imprisonment rather than a fine. \(^2\)

A related question is whether the New York State courts will follow the federal courts in holding that in public welfare offenses, such as environmental crimes, the prosecutor need not prove a specific mental state such as “knowledge” or “intent,” in every element of a charged offense. The New York State Court of Appeals has held that crimes listed in the ECL are public welfare offenses and therefore should be liberally construed. \(^3\)

At the same time, however, the ECL provides that the interpretation of its criminal provisions is guided by the New York Penal Law, which to the contrary, is to be strictly construed. Specifically, under the mental culpability requirements provided under the New York Penal Law, it is presumed that a culpable mental state applies to every element of an offense unless an intent to limit its application clearly appears. \(^4\) There is no case law addressing whether this restriction also applies to crimes outside the Penal Law. In light of this statutory reference, it is uncertain whether a state trial court will have the discretion to apply the culpability requirement to just some of the elements of an environmental crime as is common for other public welfare offenses. \(^5\) This issue and the relaxation of other similar evidentiary burdens of proving criminal intent must be addressed by New York and other industrialized states before state prosecutors will be able to successfully prosecute many otherwise culpable environmental violators who endanger the workplace.

In response to these uncertainties in the state courts of New York and other industrialized states in proving the criminal intent of environmental violators, state legislatures have enacted innovative environmental legislation to ease the prosecutor's burden. For instance, under the state environmental criminal laws in the State of Ohio, state prosecutors can use the mental state of “recklessness” rather than “knowledge” to successfully prosecute and incarcerate environmental violators. \(^6\) Under this “recklessness” standard, state prosecutors in Ohio have found it is easier to prosecute corporate environmental violators, especially high-level corporate managers, than under the federal “knowledge” standard even with the latter's array of relaxed evidentiary burdens of proof such as the “responsible corporate officer” doctrine. \(^7\)

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204. N.Y. PENAL LAW § 15.15 (1) (McKinney 1988).
205. Morrick, supra note 202, at 255.
206. Celebrezze et al., supra note 1, at 230.
207. Id.
In other states, there are specifically tailored state environmental laws that may be expeditiously used even without similar federal evidentiary aids or the culpability standard of recklessness. For example, in New York, the “endangering statute,”208 enacted by the New York state legislature in 1986 to criminalize releases of hazardous air emissions that endanger workers may prove to be a powerful weapon for state prosecutors. This statute, officially titled “Endangering Public Health, Safety or the Environment,” was enacted in response to the 1984 accident in Bhopal, India, in which a cloud of toxic gas from a Union Carbide pesticide plant had killed thousands of people.209 A subsequent survey by the Attorney General of the State of New York had concluded that such a fatality could happen in New York State where thousands of pounds of toxic chemicals are accidentally released into the environment each year.210

This “endangerment” statute provides a range of felony-level sanctions for any knowing or reckless release of a hazardous substance that endangers public health, safety, or the environment.211 The basic scope of this statute includes any conduct accompanied by a culpable mental state leading to the unauthorized release of a substance that is hazardous to public health or safety or the environment. This statute’s scope is innovative and expansive to environmental criminal law enforcement because it applies whether the release is a gas, liquid, or solid.

The sanctions under this criminal environmental statute can be severe. For the knowing intent crime of “Endangering Public Health, Safety or the Environment in the Second Degree,” a Class D felony, the maximum indeterminate term is seven years imprisonment.212 In addition, the defendant is subject to a fine of up to $150,000 or twice the amount gained from the criminal conduct.213 A person is guilty of this offense when:

- engages in conduct which causes the a) release to the environment of a substance acutely hazardous to public health, safety or the environment and b) such release causes physical injury to any person who is not a participant in the crime.214

The New York “endangerment statute” may empower state prosecutors to more readily prosecute corporate criminal conduct, concerning any media, such as hazardous air pollutant releases, that endanger

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212. N.Y. PENAL LAW § 70.00(02)(d) (McKinney 1988).
214. Id. § 71-2713(1) (McKinney Supp. 1995).
the health or safety of employees, because it does not have the jurisdic-
tional limitations of the federal "knowing endangerment crime" under the CAA. For instance, this state statute may be used regard-
less of whether the hazardous air release occurred inside or outside
the enclosed confines of the workplace. In contrast to the federal reg-
ulatory limits upon the scope of a release into the "ambient air," under the state ECL, the definition of a "release" into the "environ-
ment" is expansive. In particular, the broad definition of "release" under that statute provides jurisdiction whether or not the hazardous
substance entered the environment at the time it endangered the
victim.

Determining whether the released air emission is a hazardous or
acutely hazardous substance release under the ECL is simple; the sub-
stances are listed pursuant to implementing regulations under the
statute.

To determine the meaning of "physical injury" under this endan-
ergizing crime, one simply turns to its statutory definition under the New
York State Penal Law. Also, in prosecutions where an "acutely" hazardous substance is knowingly released into the environment,
there is no requirement to even demonstrate physical injury to the
victim. Therefore, problems of proving causation found in the fed-
eral "knowing endangerment" crimes such as those under the CAA,
are avoided altogether under the state endangering statute for certain
air emissions such as asbestos.

In the case of hazardous air emissions that endanger workers, there
are other felony-level "endangering" crimes under the ECL that may
be easier for a state prosecutor to prove culpability in addition to the
crime of Endangering Public Health, Safety or the Environment in the
Second Degree. For instance, under the reckless standard, the release
into the environment of an acutely hazardous substance, such as as-
bestos, may be prosecuted as a Class E felony, regardless of whether
or not physical injury had befallen the victim as a result of the defend-
ant's conduct. In sum, at least in New York, using the state endan-
germent statute to prosecute hazardous air releases that endanger
workers may be much easier than using any other state environmental

215. "Release" means "any pumping, pouring, emitting, emptying, or leaching, di-
rectly or indirectly, of a substance so that the substance or any related constituent
thereof, or any degradation product of such substance or of related constituent
thereof, may enter the environment, or the disposal of any substance." Id. § 71-

216. "Environment" is defined as "any water, water vapor, any land including land
surface or subsurface, air fish, wildlife, biota, and all other natural resources." Id.

217. Id. § 37-0103 (McKinney Supp. 1995).

218. N.Y. PENAL LAW § 10.00(9) (McKinney 1988) ("impairment of physical condi-
tion or substantial pain").

219. Id. § 71-2713(2) (McKinney Supp. 1995).

220. Id. § 71-2712 (McKinney Supp. 1995).
criminal statutes. This statute, when combined with the innovative use of traditional state penal law crimes such as assault, larceny, or forgery, will certainly provide a potential state criminal enforcement arsenal to offset the apparent limitations of the crime of "knowing endangerment" under the CAA.

**Conclusion**

The "knowing endangerment" provisions under RCRA and CWA have been hailed by legal commentators as "the wave of the future" for federal prosecutors.\(^{221}\) This positive feedback may not apply to the latest "knowing endangerment" crime enacted by Congress under the CAA Amendments of 1990. New burdens of proof and ambiguous legal terms inserted into this provision by Congress in the spirit of political compromise may turn the CAA Amendments' "knowing endangerment" crime into little more than a "gold mine" of litigation for federal defense attorneys.

Although these legal hurdles may hinder federal prosecutors, the weaknesses of the knowing endangerment crime under the CAA Amendments may provide an opportunity for state prosecutors in their traditional role as protectors of the workplace. Innovative criminal prosecutions under traditional criminal statutes and under the state "endangerment" statute may provide greater assurance of a workplace safe from air pollutants than may ever result under the CAA.

Only the passage of time will tell whether state prosecutors have the inclination and innovation to meet this challenge. In the interim, the health and safety of thousands in the workforce of New York and other industrialized states remain at peril.

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\(^{221}\) Romantowski, *supra* note 144, at 272.