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Toward Strict Liability for Abandoned Mine Drainage

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NOTES

Toward Strict Liability for Abandoned Mine Drainage

INTRODUCTION

Drainage from abandoned mining areas makes up a substantial portion of the acid mine drainage which pollutes Appalachia's waters. When a mining area is reclaimed properly drainage from the area generally will not pose a major threat to the environment; however, if reclamation is not completed properly, the drainage can remain highly acidic and contain large quantities of sediment many years after mining operations have ceased. Although coal mine operators will probably remain liable for the damage caused by drainage from their past mining operations and responsible for its abatement, if the property on which an abandoned mine is located has been sold in the interim, a more difficult issue arises—whether one who merely owns land from which mine drainage emanates is responsible for the abatement of the pollution.

This Note examines methods by which such responsibility may be imposed. Coal mine drainage and the techniques used to control it will be discussed briefly followed by an examination of abatement responsibility under the common law doctrine of public nuisance, the Surface Mining Control and Reclamation Act of 1977, the Federal Water Pollution Control Act and the Resource Conservation and Recovery Act of 1976. For reasons which will be discussed, the federal common law of nuisance is

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1 According to 46 Fed. Reg. 3136, 3144 (1981), "it has been estimated that 78% of all acid mine drainage in Appalachia is caused by post-mining discharges." (citing Commonwealth v. Barnes & Tucker Co., 371 A.2d 461 (Pa. 1977)).

2 Id.

3 See generally Rogers, Acid Coal Mine Drainage—The Perpetual Treatment Problem, 1 E. Min. L. Found. § 6.04 (1980).


not a viable theory of recovery. The issue of whether imposition of responsibility upon a mere owner constitutes a taking without just compensation in violation of the fifth or fourteenth amendments is beyond the scope of this Note. It is important to point out, however, that the application of the doctrines discussed here raises this major issue.

I. ACID MINE DRAINAGE

Drainage from abandoned mines can occur as surface runoff of rainwater from a surface mining site or as seepage, or leachate, from an underground mine. All coal contains a certain amount of sulfur, usually in the form of pyrite, a sulfide of iron. The acid in mine drainage is generally sulfuric acid, formed by oxidation of pyrite when coal is exposed to water and oxygen. This acid-forming reaction creates a second component of mine drainage, iron hydroxides, which also contribute to the pollution problem. When the mine drainage reaches a stream, the iron, which is only slightly soluble in water, precipitates and forms the material known as “yellow-boy.” Other minerals, such as aluminum, copper, zinc, magnesium and manganese, also may be contained in the mine drainage.

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7 See notes 27-48 infra and accompanying text discussing the inapplicability of federal common law of nuisance.
8 U.S. Const. amend. V.
9 U.S. Const. amend. XIV.
12 T. Simonyi, D. Akers, Jr. & W. Grady, The Character and Utilization of Sludge From Acid Mine Drainage Treatment Facilities 1 (April 2, 1977) (Technical Report of the Coal Research Bureau) [hereinafter cited as Sludge Utilization]. Other types of acids also may be formed as the acid further oxidizes while seeping into water flowing through the mine. Id. at 497.
13 Id.
14 Rogers, supra note 3, § 6.02. This substance gives the streams which it infiltrates a reddish or yellow color.
15 Pennsylvania Acid Mine Drainage, supra note 11, at 497; Begley & Williams,
Approximately 5,700 miles of streams in Appalachia are affected by acid mine drainage. Seventy-eight percent of this drainage originates from abandoned mines. Statistics such as these illustrate the magnitude of the problem. Municipal water supplies may be damaged, as well as private wells located near mine sites. Aquatic life in nearby streams may be killed or diminished. Industrial users must treat the water before use or incur damage to their equipment due to corrosion.

Control of mine drainage may be accomplished by preventing its formation or by treating it to remove the deleterious substances. Drainage from a surface mine may be prevented by backfilling and compacting the areas where coal has been removed. This removes air from the exposed pyrites thus preventing the formation of acids. This method is generally successful in preventing formation of acid drainage from surface mines, but underground mines present a much more difficult problem. Underground mines must be inundated with water and the openings then sealed. It is effective only if air enters the mine through natural geological fissures or when subsidence occurs.

Acid mine drainage may be treated by a number of different methods. By far the most common method in use today is neutralization, which involves treating the water with crushed lime-

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Coal Mine Water Pollution: An Acid Problem with Murky Solutions, 64 Ky. L.J. 507, 511 (1976-77).

16 Pennsylvania Acid Mine Drainage, supra note 11, at 496.
17 See note 1 supra.
18 Pennsylvania Acid Mine Drainage, supra note 11, at 499.
19 Rogers, supra note 3, § 6.02. The second alternative for control—treatment—presents the problem of abatement actions of indefinite duration. If proper reclamation procedures are not employed at the time a mine is closed, acids could continue forming for many years. See 46 Fed. Reg. 3136, 3144 (1981). At least one study prepared for the Environmental Protection Agency (EPA) shows that even if all present and future mines were to adopt advanced procedure for control of their mine wastes, the water quality in many areas would not be substantially improved due to the large amounts of acid drainage from abandoned mines. Id.
20 Rogers, supra note 3, § 6.02.
21 Id.
22 See id.; Pennsylvania Acid Mine Drainage, supra note 11, at 502.
23 See generally Note, supra note 11, at 510 & n.11 (listing several of the more exotic treatment methods); Pennsylvania Acid Mine Drainage, supra note 11, at 500.
stone or lime, aeration of the treated water and, finally, settling of the precipitate formed by the reaction of the limestone and the acid during aeration. This method has several disadvantages. In the settling process, a large amount of sludge is formed which must be disposed of properly. Furthermore, after treatment, the water has an increased hardness which may make it undesirable for certain uses. Also, this method of treatment is expensive and can be difficult to implement.

Abatement of acid mine drainage, while costly and difficult, is obviously necessary. The rest of this Note will address the question of whether one who has not created the drainage problem should be responsible for its abatement.

II. PUBLIC NUISANCE THEORY

The federal common law of nuisance was developed nearly eighty years ago in *Missouri v. Illinois* and *Georgia v. Tennessee Copper Co.* Both of these cases involved pollution which crossed state borders; the interstate character of the nuisance is apparently why the United States Supreme Court resorted to "principles of federalism" in reaching its decisions in these cases. The Tenth Circuit Court of Appeals, in *Texas v. Pankey*, was the first to characterize interstate nuisance theory as "federal common law." *Pankey* also involved pollution crossing state borders.

The United States Supreme Court in *Illinois v. City of Milwaukee* (*Milwaukee I*), confirmed that the federal common law of nuisance was indeed a viable doctrine for recovery in certain cases involving interstate pollution. Although the Supreme

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24 Rogers, supra note 3, § 6.02; *Pennsylvania Acid Mine Drainage*, supra note 11, at 500.
25 *Sludge Utilization*, supra note 12, at 3-5, discusses some possible uses for sludge created in the treatment of acid mine drainage.
26 See *Pennsylvania Acid Mine Drainage*, supra note 11, at 500-01.
27 200 U.S. 496 (1906).
28 206 U.S. 230 (1907).
30 441 F.2d 236 (10th Cir. 1971).
32 The Court stated, "When we deal with air and water in their ambient or inter-
Court recognized the existence of the federal common law of nuisance in Milwaukee I, it also noted its possible preemption by federal statutory law. 33 The decline of the federal common law of nuisance doctrine, at least in interstate pollution cases, soon followed. The Fourth Circuit Court of Appeals, in Committee for Jones Falls Sewage System v. Train, 34 refused to apply the doctrine, stating that "it would be an anomaly to hold that there was a body of federal common law which proscribes conduct which the 1972 [Amendments to the Federal Water Pollution] Act of Congress legitimizes." 35 In City of Milwaukee v. Illinois 36 (Milwaukee I) was an action brought by the State of Illinois against four Wisconsin cities, the Sewerage Commission of the City of Milwaukee, and the Metropolitan Sewerage Commission of the County of Milwaukee. 406 U.S. at 93. The complaint alleged that the defendants were discharging daily "some 200 million gallons of raw or inadequately treated sewerage and other waste materials" into Lake Michigan and sought abatement of the discharge as a public nuisance. Id.

The Court determined it could hear the case as a permissible exercise of its original jurisdiction but declined to do so, remanding the case to the federal district court. Id. at 108. However, the Court did say that abatement of interstate water pollution was a proper cause of action under the federal common law of nuisance, and that "application of federal common law to abate a public nuisance in interstate or navigable waters is not inconsistent with the Water Pollution Control Act." Id. at 104. The Court concluded that Congress in section 10(b) of the Act permitted extra-statutory enforcement of pollution abatement. Section 10(b) provided: "State and interstate action to abate pollution of interstate or navigable waters shall be encouraged and shall not . . . . be displaced by Federal enforcement action." Id.

33 The Court stated, "[i]t may happen that new federal laws and new federal regulations may in time pre-empt the field of federal common law of nuisance. But until that comes to pass, federal courts will be empowered to appraise the equities of the suits alleging creation of a public nuisance by water pollution." Id. at 107.

After Milwaukee I, the federal common law of nuisance was widely applied to air and water pollution cases. See, e.g., Illinois v. Outboard Marine Corp., 619 F.2d 623 (7th Cir. 1980); Commonwealth of Puerto Rico v. Muskie, 507 F. Supp 1035 (D.P.R. 1981). Both decisions have been vacated—Muskie was vacated subject to a consent agreement with the federal government in Marquez-Colon v. Reagan, 668 F.2d 611 (1st Cir. 1981) and Outboard Marine was vacated for reconsideration in light of Milwaukee II, discussed in notes 38-37 infra and accompanying text. 453 U.S. 917 (1981). See generally Note, Federal Common Law and Water Pollution: Statutory Preemption or Preservation?, 49 Fordham L. Rev. 500, 501 & nn.6-9 (1980-81).

34 539 F.2d 1006 (4th Cir. 1976).

35 Id. at 1009. The court declined to enjoin discharges from a city sewer system which was operating under a permit issued under the authorization of the Environmental Protection Agency (EPA) stating that "[w]hile state courts are free to apply state nuisance law more rigidly, a federal court in such a local controversy may not turn to a supposed body of federal common law to impose stricter standards than the statute provides." Id.

waukee II), the Supreme Court held that the Federal Water Pollution Control Act (FWPCA) had preempted the federal common law of nuisance, at least as it related to the claims of the state of Illinois against the city of Milwaukee for pollution of Lake Michigan.\(^{37}\) Then, in *Middlesex County Sewerage Authority v. National Sea Clammers Association*,\(^{38}\) the Supreme Court held that the FWPCA had entirely preempted the federal common law of nuisance in the area of water pollution.\(^{39}\) In light of the Court's decisions in these cases and lower court decisions which have relied on them,\(^{40}\) it appears settled that the federal common law of nuisance no longer can be used as a remedy for mine drainage.

\(^{37}\) *Id.* at 317. The Court's ruling was based upon the fact that the 1972 Amendments to the Federal Water Pollution Control Act (FWPCA) are comprehensive in establishing guidelines for the control of every point source of pollution in the nation. *Id.* at 317-19. *See 33 U.S.C. § 1362(14) (1976) (defining “point source”).* The Court also explained that the analysis applied in determining if federal statutes preempt federal common law is not the same as the analysis applied when determining if federal statutes preempt state law. The assumption that the police powers of the states are not to be superseded by federal statute unless Congress exhibits a clear intent to do so creates a presumption against federal statutory preemption of state law which does not exist in favor of federal common law. 451 U.S. at 316.

The Court's decision in Milwaukee II that the FWPCA preempted federal common law of nuisance in the area of interstate water pollution followed from the fact that five months after Illinois filed suit for abatement in federal district court as directed by the Milwaukee I decision Congress passed the 1972 Amendments to the Act. *Id.* at 310. The Court concluded that, in passing the Amendments, "Congress has not left the formulation of appropriate federal standards to the courts through application of often vague and indeterminate nuisance concepts and maxims of equity jurisprudence, but rather has occupied the field through the establishment of a comprehensive regulatory program supervised by an expert administrative agency." *Id.* at 317. The Court then concluded, "The establishment of such a self-consciously comprehensive program by Congress, which certainly did not exist when [Milwaukee I] was decided, strongly suggests that there is no room for courts to attempt to improve on that program with federal common law." *Id.* at 319. Thus, the "new federal laws" which the Court had predicted in Milwaukee I could preempt federal common law of nuisance had come to pass in the form of the 1972 Amendments. See notes 31-33 *supra* and accompanying text discussing the Milwaukee I decision.


\(^{40}\) In *New England Legal Foundation v. Costle*, 666 F.2d 30 (2d Cir. 1981), the court of appeals relied on Milwaukee II in affirming the dismissal of a federal common law nuisance claim for air pollution due to the fact that the facility was operating under the authorization of the EPA. *See also In re Oswego Barge Corp.*, 664 F.2d 317 (2d Cir.
It has been held, on the authority of Milwaukee II, that the FWPCA preempted state common law in the area of interstate pollution; but the same is not true for intrastate pollution. A "savings clause" of the FWPCA expressly provides that the section allowing citizen suits shall not restrict "any right which any person (or class of persons) may have under any statute or common law to seek ... any other relief." This language has been interpreted, based upon the legislative history, as preserving state common law actions.

Although federal statutory and regulatory schemes have become the primary methods of fixing liability for pollution, state nuisance law may still play a major role in determining liability for pollution from abandoned coal mines. At common law, a public nuisance is "the doing of or failure to do something that injuriously affects the safety, health or morals of the public, or works some substantial annoyance, inconvenience or injury to the public." Liability for nuisance may arise from an intentional or negligent invasion of the plaintiff's interest or from conduct which is abnormally dangerous and thereby imposes strict liability. Liability rarely arises absent one of these bases.


43 Middlesex County Sewerage Auth. v. National Sea Clammers Ass'n, 453 U.S. at 20 n.31 (referring to S. REP. NO. 414, 92d Cong., 2d Sess. 81 (1971)).
44 Many states have statutes declaring water pollution to be a public nuisance. See, e.g., 35 PA. CONS. STAT. ANN. §§ 691.1, 691.307(c) (Purdon Supp. 1982-83).
45 See generally Begley & Williams, supra note 15, at 543-44. Other torts, such as trespass and negligence, also are important in determining responsibility for abandoned mine drainage. However, these torts generally are restricted to actions between individuals; thus, nuisance has become by far the most widely applied tort in pollution cases.

One commentator has suggested that a private cause of action may exist under federal common law of nuisance. See V. YANNACOME, JR., B. COHEN & S. DAVISON, ENVIRONMENTAL RIGHTS AND REMEDIES 25 (Supp. 1981).
In the past it was held that a defendant had to be negligent in allowing a nuisance to continue in order to be liable for a nuisance which was within the defendant's control but which he did not create. The doctrine set forth in the English case of *Rylands v. Fletcher* has been rejected as too severe; the *Rylands* doctrine holds that one who keeps a dangerous condition or activity on his or her land so as to be an unnatural use of the land is absolutely liable for any damages caused as a natural consequence of the escape of the dangerous condition or activity. In *Department of Environmental Protection v. Exxon Corp.*, the court held that "mere ownership of property without anything more cannot and should not be the determinative factor in imposing liability." The court refused to hold the defendant liable under a theory of common law nuisance since the defendant did not create the condition causing the nuisance and the mere inaction of the owner of the land was not unreasonable.

Recently, the doctrine expressed in the older cases has been applied more liberally, and conduct which would have once

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48 See, e.g., Terrell v. Alabama Water Serv. Co., 15 So. 2d 727, 730 (Ala. 1943). In Terrell the court held that if the defendant did not by his affirmative act create the nuisance, the only possible basis for liability would be that he failed to exercise due care in allowing it to continue. Furthermore, if the defendant exercised due care in removing the condition giving rise to the nuisance and the nuisance still persisted, he would not be liable in the same manner as one who had created the nuisance by affirmative act. *Id.* Accord Adams v. Baltimore Transit Co., 100 A.2d 781, 787 (Md. 1953). According to RESTATEMENT (SECOND) OF TORTS § 839 (1979), a possessor of land who fails to abate a nuisance caused by an abatable artificial condition not created by the possessor is liable if the claim is otherwise actionable, the possessor knows or should know of the condition and the risk caused by it, the possessor knows or should know that those affected by the nuisance have not consented to it, and the possessor has failed, after reasonable opportunity, to take steps to abate it.


50 United Fuel Gas Co. v. Sawyers, 259 S.W.2d 466, 468 (Ky. 1953). The Sawyers court felt that the *Rylands v. Fletcher* doctrine should not apply when the owner's use of the land was a reasonable one. It held that, since the defendant's use of his land was reasonable, the plaintiff could not recover for contamination of his water well, which he alleged was the result of the defendant's drilling a gas well on the adjacent property. The court stated that "in the absence of negligence there is no liability if there was a legitimate and reasonable use." *Id.*

51 See generally W. Prosser, *supra* note 47, at 505.


53 See generally W. Prosser, *supra* note 47, at 505.

54 See generally W. Prosser, *supra* note 47, at 505.
been considered reasonable has been deemed an adoption or continuance of the nuisance, giving rise to liability of the owner of property on which the nuisance exists. In Commonwealth v. Barnes & Tucker Co.,\(^ {55}\) it was held that even though a mere owner of land cannot be required to abate a public nuisance on his land where his ownership is unrelated to the conditions resulting in the nuisance, conducting mining operations is an activity which constitutes a continuance of the nuisance; therefore, the operator is responsible for abating the existing nuisance.\(^ {56}\)

Relying on Barnes & Tucker, the court in Philadelphia Chewing Gum Corp. v. Pennsylvania Department of Environmental Resources,\(^ {57}\) held a lessor-owner of land responsible for the abatement of pollution created by the lessee.\(^ {58}\) Since the successors in title to the party creating the nuisance “considered and then decided against divesting themselves of the business” after learning of the existence of the pollution, they had “engaged in affirmative conduct [indicating] an adoption of the condition,” thereby incurring liability for the pre-existing nuisance.\(^ {59}\) This decision represents a significant expansion of liability for continuation of a nuisance.

Under Philadelphia Chewing Gum, a mere purchaser of land on which an abandoned mine is located who learns of the existence of polluting drainage from the mine after the purchase and does not attempt to rescind the purchase can be held to have “adopted” or “continued” the nuisance and thereby be responsible for its abatement. Furthermore, liability could be imposed if

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\(^ {56}\) Id. at 479. Drainage from an abandoned mine on property adjacent to the defendant’s had entered the defendant’s mine. The defendant was ordered to abate the pollution emanating from its own property, as well as that entering its property from the adjacent abandoned mines.


\(^ {58}\) Id. at 152.

\(^ {59}\) Id. at 151. The court in Philadelphia Chewing Gum held that a landowner could not be required to “abate a public nuisance existing on his land where such ownership is unrelated to the forces or conditions resulting in a public nuisance.” Id. at 149 (quoting from Commonwealth v. Barnes & Tucker Co., 353 A.2d at 478). However, the court also cited with approval Commonwealth v. Wyeth Laboratories, Div. of Am. Home Products Corp., 315 A.2d 648 (Pa. Commw. Ct. 1974), indicating that the rule set forth in Wyeth was still viable—that a person may be required to abate a nuisance created in the lawful use of the land under certain circumstances. 315 A.2d at 653.
the purchaser was aware, or in the exercise of due care would have been aware, of the pollution before the purchase. Such applications of the doctrine approach the severity of a strict liability rule and undoubtedly raise serious questions of constitutionality; nevertheless, given the current trend in the courts to expand traditional theories to their constitutional limits in attempts to impose liability for environmental damage, such holdings are likely.

III. THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) was enacted to control the surface mining of coal and the surface effects of underground mining of coal. One of SMCRA's purposes is to "assure that surface mining operations are so conducted as to protect the environment." This is accomplished largely through regulation of mining operations and practices. SMCRA provides for promulgation of regulations for an interim program to remain in effect until superseded by the permanent program. The permanent program applies to all "coal exploration and surface coal mining and reclamation operations" on non-Indian and non-federal lands, with certain narrow exceptions. Surface coal mining and reclamation operations are defined as "surface coal mining operations and all activities necessary or indicental to the reclamation of such oper-

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61 In Sprecher v. Adamson Co., 636 P.2d 1121 (Cal. 1981), the California Supreme Court held that an uphill landowner owed a duty of reasonable care to a downhill landowner with regard to natural conditions of the land. The uphill landowner was held liable for damage to the downhill landowner's property caused by a landslide from the uphill landowner's property.
63 Id. § 1202(d).
65 30 C.F.R. § 710.3(a) (1981).
66 Id. § 700.11. The exceptions are for the extraction of: 1) coal by a landowner for his own noncommercial use; 2) coal for commercial use where the operation affects less than 2 acres; 3) 250 tons of coal or less, and 4) coal incidental to the construction of a government-financed highway. See also id. § 701.11.
Reclamation is defined as “those actions taken to restore mined land as required by this chapter to a postmining land use approved by the regulatory authority.”

Under the permanent program regulations, “the person who conducts” mining activities must control drainage from mining activities. A person who merely purchases an abandoned coal mine would not be conducting mining operations and therefore would not be subject to the provisions of the regulatory program. Further, the Secretary of the Interior may not exercise jurisdiction for enforcement of SMCRA over one who is not an “operator” as that term is defined in the permanent regulatory program. An “operator” is defined as “any person engaged in coal mining who removes or intends to remove more than 250 tons of coal from the earth or from coal refuse piles by mining within 12 consecutive calendar months in any one location.” A mere purchaser of an abandoned coal mine site would not be considered an operator and therefore the SMCRA would not apply to such a purchaser.

IV. THE FEDERAL WATER POLLUTION CONTROL ACT

The Federal Water Pollution Control Act (FWPCA) is designed to “restore and maintain the chemical, physical and biological integrity of the Nation’s waters.” Two of FWPCA’s goals are achievement of “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water” by July 1, 1983, and elimination of “the discharge of pollutants into the navigable waters” by

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67 Id. at § 701.5.
68 Id. §§ 816.41(d)(3), 817.41(d)(3). Section 816.41(d)(3) provides that “the person who conducts surface mining activities shall operate and maintain the necessary water treatment facilities for as long as treatment is required under this part.”
70 See Shawnee Coal Co. v. Andrus, 661 F.2d 1083 (6th Cir. 1981). In Shawnee the court held “the Secretary retains jurisdiction over an operator who has ceased removing coal until the reclamation activities are completed.” Id. at 1094. The court did not reach the question of whether one who has completed reclamation but conducts other activities in connection with a surface mining operation would be considered an operator. Id.
73 See id. § 1251(a).
1985. In 1972, the FWPCA was amended to shift the emphasis from enforcement of water quality standards to control of the discharge of pollutants at their source. Under the FWPCA, any discharge of pollutants into navigable waters without a permit is unlawful.

In recognition of the serious threat that acid mine drainage poses to our nation's waters, the FWPCA provides for the study of mine water pollution through projects which demonstrate abatement techniques for control and elimination of acid and other mine water pollution. A demonstration program also is planned to clean up abandoned state-owned mines for use as hazardous waste disposal sites. However, these programs are designed only to study the program, not regulate it. Regulation of pollution is accomplished under the National Pollutant Discharge Elimination System (NPDES).

Section 1311 makes the discharge of any pollutant unlawful if not in compliance with FWPCA. "Discharge of pollutant" is defined to include "any addition of any pollutant to navigable waters from any point source." "Pollutant" includes solid waste discharged into water. The term "point source" is defined as "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged."

To comply with the FWPCA, one must obtain a permit before discharging any pollutant. Section 1311(b) requires all point

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74 See id.
78 Id. § 1257.
79 Id. § 1257a (Supp. IV 1980).
80 Id. § 1342 (1976).
81 Id. § 1311.
82 Id. § 1362(12).
83 Id. § 1362(6). "Solid waste" is defined to include discarded material, including liquid or semi-solid material, from mining activities. 42 U.S.C. § 6903(27) (1976).
sources to achieve effluent limitations which require the application of the "best practicable control technology currently available" by July 1, 1977, application of the "best available technology economically achievable" as determined by regulations issued by the Administrator, and application of the "best conventional pollutant control technology" available by July 1, 1984. The Environmental Protection Agency (EPA) Administrator is to promulgate effluent limitations guidelines for point source categories after consulting with appropriate federal and state agencies and interested persons. These guidelines are to be incorporated in the NPDES permits.

Although Congress, in drafting the FWPCA, indicated it did not consider drainage from mining activities to be from point sources, the EPA Administrator has promulgated regulations setting forth effluent limitations guidelines for the coal mining point source category. Also, it is recognized now that the FWPCA should be read broadly in order to facilitate the achievement of its goals. Any activity discharging pollutants from a discernible site will be subjected to the NPDES program, even if no evidence exists that Congress contemplated applying the program to the activity. In National Wildlife Federation v. Gorsuch, the court stated that "the NPDES program was intended to be comprehensive" and that the FWPCA should be interpreted, "whenever possible, and reasonable, to subject pollution sources to NPDES control."

In Appalachian Power Co. v. Train, runoff from a coal

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85 Id. § 1311(b)(1)(A) (1976).
86 Id. § 1311(b)(2)(A) (Supp. IV 1980).
87 Id. § 1311(b)(2)(E) (Supp. IV 1980).
88 Id. § 1314(b) (1976 & Supp. IV 1980).
89 See id. §§ 1314(b)(B) & 1288(b)(2)(G).
90 See 40 C.F.R. § 434 (1981). Presently these regulations do not apply to post-mining discharges. See generally note 118 infra.
92 Id. at 1304.
93 Id. at 1291.
94 Id. at 1306. The court in Gorsuch held that mining activities, even though specifically listed as nonpoint sources, should be subject to control under the NPDES whenever possible. Id. at 1305.
95 545 F.2d 1351 (4th Cir. 1976).
storage pile which originated as rainfall was held to be from a nonpoint source.\textsuperscript{97} Since the \textit{Appalachian Power} case, the courts have greatly expanded the variety of discharges held to be point sources. In \textit{United States v. Earth Sciences},\textsuperscript{98} the Tenth Circuit Court of Appeals held that \textit{"[m]ining . . . may involve discharges from both point and nonpoint sources; and those from point sources are subject to regulation."}\textsuperscript{99} The court found that overflows from the leaching system at the defendant’s gold mine were discharged from point sources even though the system was intended to be a closed system with no discharges and the overflows were caused by an unusually rapid snowmelt.\textsuperscript{100}

In \textit{Sierra Club v. Abston Construction Co.,}\textsuperscript{101} excess rainfall caused an overflow from a sediment basin and erosion of piles of discarded material at a strip mine site. The court held that while the FWPCA excludes “natural rainfall drainage over a broad area” from regulation under the NPDES program, “[c]onveyances of pollution formed either as the result of natural erosion or by material means, . . . may [constitute point sources].”\textsuperscript{102} The fact that the discharges are caused by gravity flow and that the miners have done nothing more than collect rock and other materials does not preclude characterization as point sources.\textsuperscript{103} In \textit{O’Leary v. Moyer’s Landfill, Inc.},\textsuperscript{104} discharges from the defendant’s landfill which reached waters from “gullies, trenches and ditches” and “broken dirt berms” were held to be from point sources.\textsuperscript{105} The court stated that “the surface runoff of contaminated waters, once channeled or collected, constitutes discharge by a point source.”\textsuperscript{106}

\textsuperscript{97} \textit{Id.} at 1373.
\textsuperscript{98} 599 F.2d 368 (10th Cir. 1978).
\textsuperscript{99} \textit{Id.} at 373.
\textsuperscript{101} 620 F.2d 41 (5th Cir. 1980).
\textsuperscript{102} \textit{Id.} at 44-45.
\textsuperscript{103} \textit{Id.} at 45.
\textsuperscript{105} \textit{Id.} at 655.
\textsuperscript{106} \textit{Id.} (quoting Sierra Club v. Abston Construction Co., 620 F.2d at 47).
The Moyer's and Sierra Club cases both have important implications for owners of abandoned mine sites. Such an owner might make no changes whatsoever in the property, but the fact that the waters were "once channeled or collected" by the mine operator could bring contaminated runoff from the property within the definition of point source, and thereby subject the owner to liability if a permit is not obtained. The fact that the present owner was not responsible for the channeling or collection might have little effect on a determination of the owner's liability.

Section 1321 of the FWPCA prohibits the discharge of oil or hazardous substances in quantities harmful to natural resources. In United States v. Marathon Pipe Line Co.,107 Marathon was held liable for an oil discharge from its pipeline when a third party broke the pipeline with a bulldozer. The court interpreted Congress' intent in section 1321 as imposing liability on an owner even in the absence of fault or intent, and that such an imposition was "well within the constitutional powers of Congress."108 Although section 1321 specifically refers to "owners" as being within the group of persons liable,109 such a specific reference might not be necessary to bring a mere owner of a discharge within the scope of liability under the NPDES.

In United States v. Board of Trustees of Florida Keys Community College,110 the college's board was held to have authorized construction work which resulted in point source discharges of pollutants, and the construction company was held liable for violating FWPCA because it had not obtained the necessary permits.111 The company argued that its reliance on the board to obtain the necessary permits absolved it from liability. In rejecting the argument, the court stated that liability under the FWPCA is

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107 589 F.2d 1305 (7th Cir. 1978).
108 Id. at 1308. Imposing liability in Marathon Pipe Line is similar to the doctrine of enterprise liability under which liability is placed, regardless of fault, on the enterprise whose activities caused the injury. See generally W. PROSSER, supra note 47, at 494 & n.26. In United States v. Tex-Tow, Inc., 589 F.2d 1310 (7th Cir. 1978), a barge owner was held liable for a discharge of oil from its barge without fault on its part, under the same statute applied in the Marathon Pipe Line case.
111 Id. at 274.
based either upon performance of the work giving rise to the discharge or upon responsibility for or control over the work.\textsuperscript{112} The court held that "[c]ivil liability under [FWPCA] is not limited to intentional violations,"\textsuperscript{113} and explained that the FWPCA makes the "person responsible for the discharge of any pollutant strictly liable."\textsuperscript{114}

As mentioned in \textit{Florida Keys Community College},\textsuperscript{115} interpreting the FWPCA as imposing liability on the one who controls or is responsible for the activity or condition giving rise to the violative discharge, as well as on the one who actually caused the discharge, arguably is consistent with the intent of Congress, given its strong interest in regulating such discharges.\textsuperscript{116} If such an interpretation is adopted, a mere owner of an abandoned mine from which acid mine drainage emanates might be considered to have "control over" the thing giving rise to the discharge of pollutants—the abandoned mine. Such a broad interpretation seems likely given the trend evinced by recent cases interpreting the FWPCA.

The present regulations setting effluent limitations guidelines for the coal mining point source category\textsuperscript{117} expressly exclude drainage which is not from active mining areas.\textsuperscript{118} On January 13, 1981, the EPA published proposed regulations setting new effluent limitations guidelines for the coal mining point source category.\textsuperscript{119} Although the proposed regulations contain effluent limitations guidelines applicable to discharges from "post-mining areas,"\textsuperscript{120} these guidelines apply only until release of the perfor-

\textsuperscript{112} Id.
\textsuperscript{113} Id.
\textsuperscript{114} Id. (quoting from United States v. Earth Sciences, 599 F.2d at 374).
\textsuperscript{115} Id.
\textsuperscript{116} See United States v. Earth Sciences, 599 F.2d at 373.
\textsuperscript{117} 40 C.F.R.  \$ 434 (1981).
\textsuperscript{118} See, e.g., 40 C.F.R.  \$ 434.32(c) (1981); 40 C.F.R.  \$ 434.35(c) (1981). "Active mining area" is defined as "a place where work or other activity related to the extraction, removal or recovery of coal is being conducted."  \textit{Id.}  \$ 434.11(b).
mance bond. No guidelines have been proposed which would apply after release of the bond. However, the fact that no guidelines apply to a particular discharge will not exempt such discharge from the NPDES permit program. The discharge permit will still be required under section 1342(a)(1) of the FWPCA.

Much of the discharge from abandoned mines is from nonpoint sources. Section 1288 of the FWPCA regulates nonpoint sources of pollution by establishing a system for state implementation of water quality management programs. Designated state areawide agencies or the states themselves are to administer these programs. Since participation is not mandatory—the incentive being federal grants for states which comply with section 1288—most states have done little toward controlling nonpoint sources of pollution. Responsibility for nonpoint source pollution control was placed with the states because the primary method for control is land use planning, and it was believed such planning should be left to local agencies.

While discharges from an abandoned mine which are considered point source discharges are subject to regulation under the NPDES permit program, much pollution from an abandoned mine is from nonpoint sources. Regulation of nonpoint sources is

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122 See 46 Fed. Reg. 3145 (1981). See also Weinberger v. Romero-Barcelo, 50 U.S.L.W. 4434 (U.S. Apr. 27, 1982) (holding that the release of ordnance from aircraft into navigable waters was a discharge of pollutants and that a NPDES permit was required even though no effluent limitations guidelines had been promulgated which applied to the discharge). Id. at 4435. The EPA is initiating a data collection effort to study the feasibility of establishing effluent limitations guidelines which would be applicable after bond release. 46 Fed. Reg. 3146 (1981).
125 See generally Wozniak, Nonpoint Source Water Pollution And The Imposition of Effluent Limitations On Point Sources, 8 J. COMPUTERS, TECH. & L. 117 (1980); Comment, Regulation of Nonpoint Sources of Water Pollution In Oregon Under Section 208 of the Federal Water Pollution Control Act, 60 OR. L. REV. 184 (1981).
128 See Wozniak, supra note 125, at 125.
much less defined and depends upon whether the property is located in a state which regulates nonpoint sources.

V. THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976

The Resource Conservation and Recovery Act of 1976 (RCRA) is intended "to promote the protection of health and the environment and to conserve valuable material and energy resources." The regulations promulgated by the EPA pursuant to the RCRA establish a hazardous waste management system which governs the handling and disposal of hazardous wastes from "cradle to grave."

RCRA defines "solid waste" to include any solid, liquid, semi-solid or contained gaseous material resulting from mining operations. Industrial discharges which are from point sources subject to permits under the FWPCA are excluded from the definition of solid waste. The regulations define "hazardous waste" as any solid waste which exhibits any of the characteristics of ignitability, corrosivity, reactivity or toxicity, or which is specifically listed as such. However, solid waste from the extraction, beneficiation and processing of minerals, including coal, is expressly excluded from the definition of hazardous waste. This excludes from regulation under the hazardous waste management program the exploration, mining, cleaning, classification and other processing of coal.

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130 id. § 6902.
134 See generally note 84 supra and accompanying text defining point source.
137 Id. § 261.21.
138 Id. § 261.22.
139 Id. § 261.23.
140 Id. § 261.24.
141 Id. § 261.30.
142 Id. § 261.4(b)(7).
sion might not be broad enough to exclude solid waste from an abandoned mine site, since none of the above-listed activities would be taking place. Therefore, any hazardous waste leaking from an abandoned mine site into any waters, including groundwaters, could be subject to regulation under the hazardous waste management program.

Since neither mine drainage nor any of its components is included in the EPA's list of specific hazardous wastes, it is necessary to examine the defined characteristics of hazardous waste. Corrosivity is defined to include any aqueous solid waste with a pH of less than or equal to 2, or greater than or equal to 12.5. Since the pH of acid mine drainage could be near 2 and the acidity of the drainage is likely to increase after mining operations have ceased if reclamation is not completed properly, at least a portion of the drainage from an abandoned mine could be considered hazardous waste and, therefore, subject to regulation under the hazardous waste management program. However, if any of the acid mine drainage is considered to be emanating from a point source, it would be excluded from coverage by the hazardous waste management program by the exception for discharge subject to FWPCA permits.

Under this program, any person who owns a "facility" for the "disposal" of hazardous waste is required to obtain a permit for such "disposal," and until one is obtained such "disposal" is prohibited. "Facility" is defined to include "all contiguous land . . . used for . . . disposing of hazardous waste." A landfill is considered a facility under this definition, but it is not clear whether the phrase "used for" is meant to be so broadly interpreted as to include land from which hazardous waste is...

144 42 U.S.C. § 6903(3) (1976) defines "disposal" to include leaking of any solid or hazardous waste in such a way that it may enter the environment or any waters.
146 Id. pt. 261, subpart C.
147 Id. pt. 261.22(a)(1).
148 See Sludge Utilization, supra note 12.
153 Id.
leaking, when such leaking is not due to any affirmative act of the owner. If so, one who merely owns land from which acid mine drainage is leaking from nonpoint sources not covered by an approved SMRCA permit\(^{154}\) may be subject to regulation under the RCRA hazardous waste management program.

The regulations are not clear, but the definition of "disposal facility" should be considered when deciding whether to subject to the program one who does not affirmatively "dispose" of (i.e., leak) hazardous waste from a "facility" (i.e., land). "Disposal facility" is defined as "a facility . . . [at] which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure."\(^{155}\) The regulations which establish standards for facilities refer to "hazardous waste facilities,"\(^{156}\) a term not found in the definitions.

The EPA Administrator has indicated that the regulations which set facility standards will generally be applied to active facilities as opposed to inactive or abandoned facilities.\(^{157}\) However, if an inactive facility interferes with operation of an active facility, the inactive facility may be subject to some of the requirements applicable to active facilities.\(^{158}\) Therefore, if a new owner conducts an activity subject to the hazardous waste management program on land where an abandoned mine is located, that owner may have to take certain steps to abate any discharge from the abandoned mine which might interfere with the operation of the facility. In the absence of such circumstances, a mere owner of an inactive mine should not be subject to regulation under the hazardous waste management program.

Even if not subject to the program, the "imminent hazard" provision of the RCRA\(^{159}\) would still apply to an abandoned mine site. This provision permits the Administrator, upon receipt of

\(^{154}\) Regulations promulgated under the RCRA hazardous waste management program do not apply to treatment, storage or disposal of coal mining wastes and overburden which are covered by a surface coal mining and reclamation permit issued or approved under the SMCRA. 42 U.S.C. § 6925(f) (Supp. IV 1980).


\(^{156}\) Id. § 264.


\(^{158}\) Id.

"evidence that the handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment," to bring suit on behalf of the United States to immediately enjoin any person "contributing to" such endangering activity.\footnote{160} Although the provision essentially codifies the common law of public nuisance, the use of the phrase "contributing to" expands its application to persons who would not be liable under the common law.\footnote{161} This creates statutory strict liability for those not responsible for the hazard but in possession of the land on which the hazard is located.\footnote{162}

In the case of United States v. Price,\footnote{163} mere owners of property once used as a landfill in which hazardous chemicals were dumped were held to be "contributing to" the disposal (i.e., leaking) of wastes "merely by virtue of their studied indifference to the hazardous condition."\footnote{164} The defendant-owners had purchased the property from the persons who had operated the landfill knowing of its use but not knowing that toxic chemicals had been dumped there.\footnote{165} The court held that they had a duty to “investigate the actual conditions that existed on the property or take it as it was.”\footnote{166} The court’s interpretation of section 6973 is in accord with the legislative history and the EPA’s interpretation.\footnote{167}

In Price, the court also dealt with the issue of what constitutes a “disposal” under the RCRA. In holding the owners liable the court stated that “disposal” does not require any “active behavior,” but merely allowing the wastes to leak will constitute a “disposal.”\footnote{168}

The Price court also put to rest the notion that the federal common law of nuisance is the source of the government’s sub-
stantive rights in cases brought under section 6973. Nevertheless, the court did not go so far as to agree with the government in its contention that a showing of irreparable harm is unnecessary if the factors set forth in section 6973 are shown. It held that even though the statute provides for injunctive relief, it was proper for the court to consider traditional equitable criteria in determining whether an injunction should be issued.

Under the Price court’s interpretation of section 6973, a person who merely owns land from which acid mine drainage is emanating may be liable under that section if that drainage created an “imminent and substantial endangerment to health or the environment.” In United States v. Vertac Chemical Co., the court assessed the probability of harm and the seriousness of potential injury in deciding that the discharge of dioxin, a highly toxic substance, constituted an “imminent and substantial endangerment.” The court also noted that actual injury need never occur, since the potential for injury is embraced by the term “endangerment.”

While abandoned mine drainage does not pose as serious a threat to health as does dioxin, it unquestionably poses a substantial threat to the environment and to health. Moreover, the likelihood of the occurrence of the threatened harm is much greater due to the potential volume of the drainage.

169 See generally United States v. Solvents Recovery Serv. of New England, 496 F. Supp. 1127 (D. Conn. 1980); United States v. Midwest Solvent Recovery, Inc., 484 F. Supp. 138 (N.D. Ind. 1980). In both of these cases it was held that § 6973 was merely intended to confer jurisdiction upon the federal court and standing upon the EPA Administrator, but not to create any substantive rights. Both courts held that the federal common law of nuisance should be applied to determine the substantive issues. It should, however, be noted that both of these cases were decided before Milwaukee II, 451 U.S. at 304, discussed in the text accompanying notes 36-37 supra.

170 523 F. Supp. at 1057.

171 Id.


174 Id. at 885.

175 Id. The court held that in fashioning a remedy for an injury of the kind in this case, it should “strike a proper balance between the benefits conferred and the hazards created by [the defendant’s activity].” Id. at 886. Such a holding appears to be based on the enterprise liability theory. See note 108 supra.
CONCLUSION

Drainage from abandoned coal mines presently poses a greater threat to the environment than that from active mining areas, but few regulations or statutes directly address the problems of fixing liability. Most existing rules must be extrapolated from provisions not originally envisioned as encompassing such situations. Probably the most directly applicable provisions are found in various state statutes.

The FWPCA prescribes requirements if a point source is involved; however, if the drainage is from a nonpoint source, state statutes and regulations are the pertinent source of law under the Water Quality Management Program of the FWPCA. SMCRA does not apply to one who has not and does not intend to conduct mining activities and therefore does not determine when such a person will be limited. However, the RCRA imminent hazard provision will hold liable one who contributes to a situation posing an imminent and substantial endangerment to the environment.

More statutory and regulatory controls of abandoned mine drainage probably will be devised in the near future, given the serious problem such drainage poses and the lack of present controls. It also is likely, given the trend apparent in the statutes and cases, that such controls will adopt rules of strict liability for abandoned mine drainage based on mere ownership of property.

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