Order Code RL31411

CRS Report for Congress

Controversies over Redefining "Fill Material" Under the Clean Water Act

Updated June 12, 2007

Claudia Copeland
Specialist in Resources and Environmental Policy
Resources, Science, and Industry Division

Prepared for Members and Committees of Congress

Controversies over Redefining "Fill Material" Under the Clean Water Act

Summary

On May 3, 2002, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (the Corps) announced a final rule redefining two key terms, "fill material" and "discharge of fill material," in regulations that implement Section 404 of the Clean Water Act. This report discusses the revised rule, focusing on how it changes which material and types of activities are regulated under Section 404 and the significance of these issues, especially for the mining industry.

The Clean Water Act contains two different permitting regimes: (1) Section 402 permits (called the National Pollutant Discharge Elimination System, or NPDES, permit program) address the discharge of most pollutants, and (2) Section 404 permits address the discharge of dredged or fill material into navigable waters of the United States at specified sites. These permit programs differ in nature and approach. The NPDES program focuses on the effects of pollutant discharges on water quality. The 404 program considers effects on the aquatic ecosystem and other national and resource interests.

The Corps and EPA have complementary roles under Section 404. Landowners seeking to discharge dredged or fill material must obtain a permit from the Corps under Section 404. EPA provides environmental guidance on 404 permitting. The determination of what is "fill material" is important, since fill material is subject to 404 permit requirements, while discharge of non-fill material is regulated by EPA under the Section 402 NPDES permit program.

The revised rule was intended to clarify the regulatory definition of fill material by replacing two separate and inconsistent definitions with a single, common definition. It expanded the types of discharge activities that are subject to Section 404 specifically to include construction or maintenance of the infrastructure associated with solid waste landfills and mining overburden. Further, the revised rule removed regulatory language which previously excluded "waste" discharges from Section 404 jurisdiction, a change that some argue allows the use of 404 permits to authorize certain discharges that harm the aquatic environment.

The final rule completed a rulemaking begun in April 2000 by the Clinton Administration. Its proposal had generated support from the mining industry and other regulated groups, and considerable opposition from environmental groups. The final rule is substantially similar to the earlier proposal. Environmental groups say the rule allows for inadequate regulation of certain disposal activities, including disposal of coal mining waste. The Administration says that the regulatory changes are intended to conform Corps and EPA regulations to existing lawful practice, but opponents contend that those practices violate the Clean Water Act. Legislation to reverse the revised regulations has been introduced in the 110th Congress (H.R. 2169, the Clean Water Protection Act). Similar legislation was introduced in previous Congresses.

Contents

Controversies over Redefining "Fill Material" Under the Clean Water Act

Introduction

On May 3, 2002, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (the Corps) announced a final rule which redefined two key jurisdictional terms, "fill material" and "discharge of fill material," in regulations that implement Section 404 of the Clean Water Act.[1]

The final rule completed a rulemaking begun in April 2000 by the Clinton Administration.[2] Its proposal had generated support from the mining industry and other regulated groups, and opposition from environmental groups. Their relative positions in support and opposition persist, because the final rule is substantially similar to the earlier proposal. The agencies received over 17,000 comments on the proposed rule. Most of the comments were form letters which opposed the rule; approximately 500 were non-form letters, both for and against the proposal.

The revised rule was specifically intended to clarify the regulatory definition of fill material under Section 404 by replacing two separate and inconsistent definitions with a single, common definition. In terms of the types of regulated filling activities, it expanded the types of discharge activities that are subject to Section 404 permit requirements specifically to include construction or maintenance of the infrastructure associated with solid waste landfills and mining overburden. Further, the revised rule removed regulatory language which previously excluded "waste" discharges from Section 404 jurisdiction, a change that some argue allows the use of 404 permits to authorize certain discharges that could harm the aquatic environment. This part of the rule conforms with positions taken by the Clinton Administration and now endorsed by the Bush Administration in litigation brought by environmental groups which challenged regulation of surface coal mining practices in Appalachia. The Administration's position supports industry's view concerning the proper Clean Water Act mechanism for regulating coal mining. However, that position has been opposed by environmental groups, who believe that disposal of coal mining and other waste should be regulated more stringently under other provisions of the Clean Water Act, not Section 404.

---

[1] U.S. Department of the Army, Corps of Engineers, and Environmental Protection Agency, "Final Revisions to the Clean Water Act Regulatory Definitions of 'Fill Material" and 'Discharge of Fill Material,'" 67 *Federal Register* No. 90, May 9, 2002, pp. 31129-31143.

[2] U.S. Department of the Army, Corps of Engineers, and Environmental Protection Agency, "Proposed Revisions to the Clean Water Act Regulatory Definitions of 'Fill Material" and 'Discharge of Fill Material,'" 65 *Federal Register* No. 77, Apr. 20, 2000, pp. 21292-21300.

Background — The Law and Prior Regulations

Under the Clean Water Act (CWA), it is unlawful to discharge any pollutant into waters of the United States without a permit issued under that act. The act contains two different permitting regimes: (1) Section 402 permits (called the National Pollutant Discharge Elimination System, or NPDES, permit program) address the discharge of most pollutants, and (2) Section 404 permits address the discharge of dredged or fill material into navigable waters[3] of the United States at specified sites. The NPDES permit program is administered by EPA. The Corps and EPA have complementary roles under Section 404. Landowners or developers seeking to discharge dredged or fill material must obtain a permit to do so from the Corps. EPA provides environmental guidance on Section 404 permitting and can veto a Corps permit, based on environmental impacts of the proposed discharge activity.

The act's two separate permit programs differ in nature and approach. The NPDES program focuses primarily on the effects of discharges from industrial facilities and municipal sewage treatment plants on water quality and evaluates whether the discharge will adversely affect the chemical, physical, or biological integrity of the water. Under that program, pollutant discharges are controlled through the imposition of effluent limitations which restrict the quantities, rates, and concentrations of discharged constituents. Section 402 permits include limitations that reflect treatment with available pollution control technology, either to meet national minimum standards established by EPA, or more stringent treatment levels where needed to meet state-established water quality standards. The standard for issuance of a 402 permit is compliance with the effluent limitation and toxic pollutant control provisions of the act. EPA is authorized to issue NPDES permits; the agency has delegated this responsibility to 45 states, and EPA is the permitting authority in the remaining states.

The Section 404 program focuses on discharges of two materials: dredged material and fill material. As described in the April 2000 proposal, "Fill material differs fundamentally from the types of pollutants covered by section 402 because the principal environmental concern is the loss of a portion of the water body itself."[4] In contrast to the NPDES program's specific focus on water quality, the Section 404 program has a broader focus on effects of the discharge on the aquatic ecosystem as a whole, including wetlands. It requires evaluation of alternatives to the discharge and of measures to minimize and compensate for unavoidable adverse effects. Discharges that would have significant adverse effects on aquatic ecosystems are not allowed, and discharges also are not allowed if there are practicable alternatives with less adverse effects on the aquatic ecosystem. The standard for issuance of a 404

---

[3] "Navigable waters" means the waters of the United States, including the territorial seas. CWA §502(7). "Waters of the United States" means those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce, including their tributaries, adjacent wetlands, and isolated waters where the use, degradation or destruction of such waters could affect interstate or foreign commerce. 33 CFR Part 328.

[4] 65 *Federal Register* 21293.

permit is consideration of the full public interest by balancing the favorable impacts against the detrimental impacts of a proposed activity to reflect the national concerns for both the protection and utilization of important resources.

The Corps and EPA have complementary roles and regulations for the Section 404 program. The Corps' regulations (at 33 CFR Parts 320-330) describe general regulatory policies, permit procedures and processing, and program definitions. EPA's regulations (at 40 CFR Parts 230-232) provide the environmental guidelines for specifying disposal sites for dredged or fill material, procedures for a possible EPA veto of a permit, and definitions.

Among the definitions of key terms contained both in the Corps' and EPA's regulations are two closely related definitions, "fill material" and "discharge of fill material." Neither term is defined in the Clean Water Act, leaving it to the administrative agencies to do so. Both the 404 and the NPDES programs regulate the "discharge of a pollutant," which the act defines as including, among others, dredged spoil, solid waste, chemical wastes, biological materials, rock, sand, and cellar dirt discharged into water.

The determination of what is "fill material" is important, since fill material is subject to 404 permit requirements, while discharge of non-fill material is subject to NPDES permit requirements.[5] EPA's and the Corps' definitions of "discharge of fill material" previously were identical[6] and remain so in the revised definitions to mean "the addition of fill material into waters of the United States." They list, by way of example, activities typically related to construction for site development, roadways, erosion protection, etc., where the filling in of a waterbody occurs as a necessary element of the project. (40 CFR §232.2 and 33 CFR §323.2(f))

While the two agencies previously defined "discharge of fill material" in identical terms, they had different regulatory definitions for the related term "fill material." The Corps' definition, at 33 CFR §323.2(e), which was adopted in 1977, stated:

> The term "fill material" means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of an [sic] water body. The term does not include any pollutant discharged into the

---

[5] CWA Section 404(f) exempts certain activities from 404 permit requirements. Most are related to agricultural practices. These include normal farming, silviculture, and ranching activities; maintenance of existing dikes, dams, levees, or causeways; construction or maintenance of farm or stock ponds or irrigation ditches; construction of temporary sedimentation basins on construction sites; and construction or maintenance of farm or forest roads. Section 402 NPDES permits are not required for these discharges. Section 404(f) also exempts federal projects specifically authorized by Congress. However, these activities may require other federal or state environmental permits, including under Section 402.

[6] However, the Corps' definition at 33 CFR §323.2(f) also included the statement that the term does not include plowing, cultivating, seeding and harvesting for the production of food, fiber, and forest products — activities which are part of the "normal farming" exemption under Section 404(f).

> water primarily to dispose of waste, as that activity is regulated under section 402 of the Clean Water Act.

While the Corps' definition centered on evaluating what is the primary purpose of a prospective discharge to determine whether it would be regulated by Section 404 or Section 402, EPA's definition, at 40 CFR §232.2, focused on the effect of the material. The EPA definition had remained unchanged since it was adopted in 1988. It stated:

> Fill material means "any pollutant" which replaces portions of the "waters of the United States" with dry land or which changes the bottom elevation of a water body for any purpose.

Redefinition of Key Terms

A central purpose of changing the agencies' rules was to conform the Corps' purpose-based definition of "fill material" with EPA's effects-based definition. This change was widely supported in public comments on the proposed rule. In the proposal and the final rule, the two agencies acknowledged that the different definitions and the "primary purposes" basis of the Corps' separate definition had caused confusion for some time, and had led to extensive litigation, as well. For example, the primary purpose test in the Corps' definition appeared to require the Corps to make a subjective determination about the primary purpose of a prospective discharge, and it also allowed a project proponent to seek to affect which regulatory regime would apply (Section 404 or Section 402) by simply asserting a purported purpose. Thus, in the May 2002 revision, the agencies said that they were adopting an identical definition of "fill material" that is more consistent with EPA's previous rule. It now states:

> [T]he term fill material means material placed in waters of the United States where the material has the effect of:
>
> (i) Replacing any portion of a water of the United States with dry land; or
>
> (ii) Changing the bottom elevation of any portion of a water of the United States.

In addition, however, the revised definition of fill material eliminated language contained in the Corps' previous regulation which had excluded "any pollutant discharged into the water primarily to dispose of waste" from Section 404 authorization. This change reflected the agencies' view that an exclusion for all waste is inappropriate, a view supported in industry comments but opposed by environmental groups.

> Simply because a material is disposed of for purposes of waste disposal does not, in our view, justify excluding it categorically from the definition of fill. Some waste (e.g., mine overburden) consists of material such as soil, rock and earth, that is similar to "traditional" fill material used for purposes of creating fast land for development.[7]

---

[7] 67 *Federal Register* 31133.

The agencies explained that, while trash or garbage discharges are "generally excluded" from Section 404 because of environmental and health concerns, such discharges may be permissible in some circumstances. "An example would be where recycled porcelain fixtures are cleaned and placed in waters of the U.S. to create environmentally beneficial artificial reefs. Such material would not be considered trash or garbage and thus would not be subject to the exclusion."[8] EPA and the Corps believe that this is appropriate, and even environmentally beneficial, in situations where the otherwise excluded materials are being discharged in a manner consistent with traditional uses of fill material and where the review of the discharges under Section 404 can effectively ensure that the material will not cause or contribute to adverse environmental impacts.

The final rule clarified the term "discharge of fill material" (previously identical for both agencies) by adding two additional examples of 404-regulated activities when these discharges have the effect of fill. First, it added "placement of fill material for construction or maintenance of any liner, berm, or other infrastructure associated with solid waste landfills" to distinguish fill material used for construction of solid waste landfills from discharges of leachate from landfills into waters of the U.S. which are subject to CWA Section 402. Second, the final rule's language concerning "mine overburden" expanded language in the 2000 proposal, which specified "placement of coal mining overburden." Based on comments that this language created confusion concerning whether under the proposal overburden or similar materials from *other* mining processes might not be covered, the agencies amended the definition in the final rule to include "placement of overburden, slurry, or tailings or similar mining-related materials."

Discharges Identified as Fill Material under the Redefinition

The agencies' revised rules define certain types of discharges as specifically outside of the requirements of Section 404 and, conversely, define others as specifically subject to Section 404, thus not to Section 402.

First, as discussed above, the final rule narrowed the regulatory definition of fill material: "The term fill material does not include trash or garbage."

Second, the final rule included specific examples of materials that, according to EPA and the Corps, often constitute fill and thus should be subject to Section 404 requirements, not Section 402. The agencies added the following new text as further explanation of "fill material:"

> Examples of such material include, but are not limited to: rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure in the waters of the United States. (revised 33 CFR §323.2(e)(2) and revised 40 CFR §232.2(2))

---

[8] 67 *Federal Register* 31134.

In summary, EPA and the Corps did not de-list or remove from Section 404 coverage any of the types of construction-related activities previously defined as fill material but did narrow it to exclude trash or garbage. They modified their definitions by adding examples of several additional specific types of materials which will be considered as fill material.

Controversies Concerning Coal Mining Overburden

The most controversial aspect of the final rule was elimination of the waste exclusion previously contained in the Corps' definition of fill material, coupled with the specific inclusion of mining overburden to be regulated under Section 404. In some parts of the country, particularly in Appalachia, waste material that results from coal surface mining operations is deposited or discharged into waters of the United States as part of the overall mining activity.[9]

Historically, the Corps has regulated this type of discharge as fill, on the basis that such discharges result in the placement of rock and other material in such a way as to replace portions of a water body with dry land.[10] The Corps believes that this existing practice is the most effective way to regulate activities associated with coal mining which involve discharge of pollutants into waters of the United States. However, some persons contend that the placement of such material is more a polluting activity than a filling activity, since the characteristics and quantities of material can alter the chemical, physical, or biological integrity of a waterbody, and thus, they argue, should be regulated by EPA as waste under CWA Section 402.

This latter argument was made by plaintiffs in several lawsuits. The first was brought in West Virginia in 1998 by a citizens group, the West Virginia Highlands Conservancy, challenging regulation of "mountaintop removal" surface coal mining practices in that state. Mountaintop mining involves removing large portions of a mountain in order to expose coal seams and depositing the dirt and rock into nearby valleys and streams. An October 1999 Opinion and Order by the U.S. District Court in that case held, in dicta, that the "primary purpose" of the mountaintop mining refuse discharge is waste disposal, which is subject to Section 402, and, therefore, that the Corps lacks authority to regulate mountaintop removal under Section 404 (*Bragg v. Robertson*, 72 F.Supp. 2d 642 (S.D.W.Va. 1999)). In appealing the ruling, industry groups and labor unions said the court decision threatened the economy in West Virginia, because more stringent regulation would render mountaintop mining infeasible, while environmental and citizen groups supported the decision and argued that it should be upheld.

---

[9] For additional information, see CRS Report RS21421, *Mountaintop Mining: Background on Current Controversies*, by Claudia Copeland.

[10] The Corps authorizes dredged and fill activities either through individual permits for environmentally significant projects or through nationwide general permits covering categories of activities that are similar in nature and will likely have a minor effect on the environment. Surface mining activities are generally authorized by one of these general permits, nationwide permit 21. For additional information, see CRS Report 97-223, *The Army Corps of Engineers' Nationwide Permits Program: Issues and Regulatory Developments*.

Following the district court's ruling, the Clinton Administration sided with the industry by disagreeing with the court's finding that mountaintop mining must be regulated as waste under CWA Section 402, but it concurred with the court's related finding, supported by environmentalists, that the activity violates stream buffer zone requirements under the Surface Mining Control and Reclamation Act. On appeal, the 4th U.S. Circuit Court of Appeals vacated the ruling, but did so on grounds of jurisdiction and state sovereignty, not the merits of the case. The court held that the regulation at issue was, in fact, a matter of state law, not federal law and, thus, the case should not have been brought in federal court (*Bragg v. Robertson*, 248 F.3d 275 (CA4 2001)). In January 2002, the Supreme Court declined to review the 4th Circuit's decision.

Other legal challenges to mountaintop mining practices have occurred. A second lawsuit was brought challenging issuance of a permit under the Corps' nationwide permit program for a mountaintop mining operation in Martin County, Kentucky. In May 2002, the same U.S. District Court judge who issued the 1999 ruling in the West Virginia case issued a similar ruling in the Kentucky mountaintop mining case, holding that Section 404 does not allow filling waters of the U.S. solely for waste disposal and that agency rulemaking or permit approval that holds otherwise is beyond agency authority. "Only the United States Congress can rewrite the Act to allow fills with no purpose or use but the deposit of waste," the court stated.[11] The court permanently enjoined the Corps from issuing Section 404 permits for the disposal of mountaintop mining overburden where the sole purpose is to dispose of waste. The government appealed the district court ruling, arguing that the court erred as a matter of law in holding that the Corps lacks authority under the CWA to regulate discharge of surface mining overburden as fill material into waters of the United States. In January 2003, a federal appeals court overruled the district court's action and lifted the injunction prohibiting the Corps from issuing Section 404 permits for disposal of mountaintop mining waste (*Kentuckians for the Commonwealth v. Rivenburgh*, 317 F.3d 425 (CA4 2003)).

The Clinton Administration's position in the *Bragg* litigation was that the most appropriate and effective regulation of coal mining refuse, consistent with existing practice, is as fill under Section 404. Thus, the April 2000 proposal to amend EPA's and the Corps' regulations to include coal mining overburden in the definition of "discharge of fill material" was intended to conform those regulations with the historical practice, which both the Clinton and Bush Administrations believe is lawful, and the Administrations' position in that lawsuit.[12] EPA's and the Corps' justification of the revised rule is that the changes are necessary to conform the agencies' rules and to bring those rules in line with current practice, i.e., of treating mining overburden as fill to be regulated under Section 404.

The coal mining industry supports the practice of regulating mountaintop mining discharges under Section 404 and thus supported the redefinition. Industry

---

[11] *Kentuckians for the Commonwealth v. Corps of Engineers*, 204 F.Supp. 927, 929 (S.D. W.Va. 2002).

[12] Frampton, George T., Jr., Acting Chair, Council on Environmental Quality, letter to The Honorable Christopher Shays, April 18, 2000, 2 p.

groups such as the National Mining Association contend that Section 404 is the appropriate regulatory mechanism for addressing activities that convert waters to dry land, but requiring Section 402 permits would effectively prohibit a broad range of mining activities which have been allowed by longstanding current practice. As described above, the types of materials associated with surface mining activities (e.g., rock and sand) are defined in the Clean Water Act as pollutants when discharged into U.S. waters. If such materials are subject to the act's Section 402 NPDES requirements, they are evaluated on the basis of whether they alter the chemical, physical, or biological integrity of the water. That standard is more stringent than evaluation under Section 404, which authorizes permits for fill discharges for constructive or useful purposes.

Environmental groups strongly criticized the agencies' regulatory action to define coal mining overburden and other waste material as fill material. More generally, the environmental community opposed any proposal to allow additional discharges of waste into any waters of the United States.[13] Thus, environmentalists opposed eliminating language in the Corps' previous regulation which had excluded waste discharges from Section 404. They argued that the prior waste exclusion language in 33 CFR §323.2(e) correctly barred the Corps from issuing a 404 permit for waste disposal activities. Eliminating the waste exclusion, in their view, blurs the distinction between authority to regulate discharges for waste disposal (given to EPA under Section 402) and authority to regulate discharges of dredged or fill material (given to the Corps under Section 404). According to these groups, the changes contained in the May 2002 final rule codify a practice which is contrary to the Clean Water Act.[14] They contend that under the revised definition, the Corps has the discretion to interpret the term "fill" broadly and to authorize any waste discharges — including those detailed in the final rule and others, such as coal ash refuse — so long as the effect of the discharge is to convert waters of the United States to dry land or change the bottom elevation, but irrespective of the impact on water quality or possible destruction of the waterbody.

One analyst observed that the result of the 2002 rule revisions was to change the baseline of what is regulated by the 404 program and the NPDES program. Under the Corps' previous regulation, the disposal of waste was solely subject to Section 402. Now, where the waste has the effect of fill, the government believes that regulation under Section 404 is appropriate. Thus, fill material now defines the extent of the NPDES program, because only pollutants subject to effluent limitations are excluded from regulation as fill. According to this view, the Section 404 permitting program has been expanded at the expense of EPA's NPDES program.[15]

---

[13] "Activists Fear Broad Water Impact of New Wetlands 'Fill' Definition," *Inside E.P.A. Weekly Report*, Vol. 21, no. 16, Apr. 21, 2000, pp. 1, 12-13.

[14] "EPA, Army Corps Sign Final Rule Refining Definition of Fill; Senate Hearing Expected," *Daily Environment Report*, No. 87, May 6, 2002, p. A-11.

[15] Browand, Nathaniel, "Shifting the Boundary Between the Sections 402 and 404 Permitting Programs by Expanding the Definition of Fill Material," *Boston College Environmental Affairs Law Review*, Vol. 31, no. 3, fall 2003, pp. 617, 645-648.

Some congressional interest in these issues has been evident. Members of Congress criticized the April 2000 proposal by the Clinton Administration, and House and Senate Members also requested that the Bush Administration delay the final rule until Congress could review it.[16] On June 6, 2002, following issuance of the revised regulations by the Corps and EPA, the Senate Environment and Public Works Committee held an oversight hearing to examine the rule, receiving testimony from Administration, mining industry, and public witnesses.[17] Legislation intended to reverse the revised regulations has been introduced in the 110th Congress (H.R. 2169, the Clean Water Protection Act). It would add a definition of "fill material" to the Clean Water Act similar to EPA's regulatory definition that was in effect before 2002 (see page 4), plus a statement that the term does not include "any pollutant discharged into the water primarily to dispose of waste." Similar legislation was introduced in the 107th, 108th, and 109th Congresses, but no further action occurred.

---

[16] "Delay Urged in Effort to Revise Definition of Fill Pending Senate Review, Letter Says," *Daily Environment Report*, No. 86, May 3, 2002, p. A-2.

[17] U.S. Congress, Senate, Committee on Environment and Public Works, Subcommittee on Clean Air, Wetlands, and Climate Change, *Clean Water Act: Review of Proposed Revisions to Section 404 Definitions of "Fill" and "Dredged Fill,"* Hearing, 107th Congress, 2d Session, June 6, 2002 (S. Hrg. 107-1000), 225 p.