CHAPTER NINE (Updated 10 November 2018)

Items that are new or modified in 2018 are in yellow highlight.

Add to the end of the first paragraph at the top of page 713 (before "b. Hazardous Waste"):

In 2008, EPA amended portions of 40 *C.F.R.* 260 and 261 to exempt from the regulatory definition of solid waste certain recycled materials the agency classifies as "hazardous secondary materials." *See* 73 *Fed. Reg.* 64,668 (Oct. 30, 2008). The purpose of the rule, the agency noted, "is to encourage safe, environmentally sound recycling and resource conservation and to respond to several court decisions concerning the definition of solid waste." EPA estimates that the exemption will cover approximately 1.5 million tons per year of hazardous secondary materials, "of which the most common types are metal-bearing hazardous secondary materials (e.g., sludges and spent catalysts) for commodity metals recovery and organic chemical liquid hazardous secondary materials for recovery as solvents." *Id.* These materials will be exempt from hazardous waste regulation if they are "legimately" recycled. Although the criteria to determine legitimacy are somewhat flexible, the key factors will tend to be whether the material is managed as a valuable product (as opposed to waste) and whether it contains toxic constituents at significantly higher levels than a non-recycled version of the product made from virgin materials.

Add a new paragraph after the end of the first paragraph (above) on page 713:

In 2008, EPA conditionally exempted from RCRA regulation the combustion of certain hazardous residual materials, such as sludges and manufacturing byproducts, when they are being used as fuel, provided that the resultant emissions are comparable to those generated from the burning of fuel oil. Because these materials "are treated as valuable commodities through all phases of their management," the agency reasoned, they are not solid wastes. *See* 73 *Fed. Reg.* 77.997 (Dec. 19, 2008), which expanded the "comparable fuels exemption" rule found at 40 CFR § 261.38. EPA reversed course and withdrew this exemption in 2010, noting that it had concluded upon further consideration that these residues are "more appropriately classified as…discarded material and regulated as…hazardous waste." *See* 75 *Fed. Reg*. 33,712 (June 15, 2010). EPA also issued a proposed rule that would clarify "which non-hazardous secondary materials that are used as fuels or ingredients in combustion units are solid wastes" under RCRA. *See* 75 *Fed. Reg*. 31,844 (June 4, 2010). This proposal generated considerable controversy, as the scope of the definition of materials that are within the definition of solid waste helps define the extent to which the emissions and residues from a wide variety of combustion facilities will be regulated. A somewhat revised version of this rule was issued in 2011. *See* 76 *Fed. Reg.* 15,456 (March 21, 2011), codified at 40 *CFR* Part 241. The rule clarifies that, except where a specific individual exemption has been granted by EPA under criteria set forth in the rule, all non-hazardous secondary materials that are combusted will be classified as solid waste unless they fall into four (potentially broad)

categories. The four categories are (1) materials "used as a fuel" that "remain within the control of the generator" and meet specified "legitimacy criteria;" (2) "scrap tires used in a combustion unit that are removed from vehicles and managed under the oversight of established tire collection programs;" (3) "resinated wood used in a combustion unit;" and (4) materials "used as an ingredient in a combustion unit" that meet specified "legitimacy criteria." *See* 40 *CFR* § 241.3.

Add a new Note after the (new) second paragraph (above) on page 713:

1. The Ninth Circuit has held that the emission of diesel exhaust (and attendant particulate matter) from railyards, despite the harmful nature of the emissions, is not the "disposal" of solid waste within the meaning of RCRA.

> [B]y emitting diesel particulate matter from their railyards and intermodal facilities, Defendants do not 'dispose' of solid waste in violation of RCRA. That conclusion, in our view, follows relatively clearly from RCRA's text; however, to the extent that its text is ambiguous, RCRA's statutory and legislative histories resolve that ambiguity.

Center for Community Action and Environmental Justice v. BNSF R. Co., 764 F.3d 1019, 1030 (9th Cir. 2014). The court noted that RCRA's definition of "disposal" does not include the act of "emitting" waste. Further, comparing the legislative history of RCRA and the Clean Air Act, the court concluded that railyards are considered an "indirect" source of air pollution (the regulation of which is left to the states) under the Clean Air Act and that, while RCRA does regulate air emissions from hazardous waste treatment, storage, and disposal facilities, it does not regulate "indirect" sources of emissions such as railyards. *Id*. at 1029.

Add two new Notes to the top of page 720, after the *City of Chicago* case:

1. A range of oil and gas exploration and production wastes are exempted from regulation as hazardous waste under Subchapter C of RCRA. *See* Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes, 53 *Fed Reg* 25,446 (July 6, 1988). This includes an explicit listing of certain materials such as produced water, drilling fluids, drill cuttings and rigwash but also "other wastes associated with the exploration, development or production of crude oil or natural gas." 42 U.S.C § 6921(b)(2)(A). This serves to exclude many wastes from hydraulic fracturing (commonly known as "fracking") operations seeking to extract underground quantities of natural gas or oil. Such wastes are still subject to regulation as solid waste, however.

2. Another issue that has long been a point of contention between industry and environmental groups is the status of coal ash under RCRA. *See, e.g.,* Anthony Adragna (2013) "Lack of Federal Rules on Coal Ash Leaves Michigan Waters at Risk, Report

Says," *Environment Reporter* 44:3340. In 1980, Congress amended RCRA to provisionally exempt certain substances from regulation as hazardous wastes under Subchapter C of RCRA until EPA completed a required study, and then only if EPA subsequently made a formal regulatory finding that it was necessary to regulate them as hazardous wastes. Included among the specified list of substances were "[f]ly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels." *See* 42 U.S.C. § 6921(b)(3)(A)(i); *Solite Corp. v. U.S. EPA,* 952 F.2d 473, 478 (D.C. Cir.1991). Thereafter, following considerable delay and eventual litigation, the agency determined that it was unnecessary to regulate coal ash as a hazardous waste, but declared its intention to conduct further study on the advisability of enacting a more comprehensive regulatory regime for the substance under Subtitle D of RCRA, which governs solid wastes not deemed hazardous. *See* 58 *Fed. Reg.* 42,466 (Aug. 9, 1993).

Almost 20 years later, EPA announced that it was reevaluating its coal ash determinations and considering either regulating the substance as a hazardous waste or subjecting it to increased regulation as a (non-hazardous) solid waste. *See* 75 *Fed. Reg.* 35,128 (June 21, 2010). As noted by the D.C. Circuit in the 2018 decision discussed below, "The EPA recounts that public pressure to regulate Coal Residuals escalated after an unlined surface impoundment in Kingston, Tennessee [at a Tennessee Valley Authority facility] suffered a 'catastrophic' structural failure on December 22, 2008. The impoundment released approximately 5.4 million cubic yards of [coal ash] sludge across 300 acres of land and into the nearby Emory River." *Utility Solid Waste Activities Group v. EPA*, 901 F.3d 414, 423 (D.C. Cir. 2018).

In 2013, in response to a consolidated set of lawsuits seeking to compel various regulatory determinations, a federal judge ordered EPA to submit a schedule for "compliance with its obligation to review and revise if necessary its Subtitle D regulations concerning coal ash." *Appalachian Voices v. McCarthy*, 989 F.Supp.2d 20 (D. D.C. 2013). (The plaintiffs in these lawsuits included not just environmental groups, but also representatives of the coal ash recycling industry, two of which market what they term "coal combustion products, which incorporate coal ash into construction materials in order to improve the materials' performance," and one of which "provides coal-fired power generating plants with on-site ash handling and management, environmental services and engineering services." *Id.* at 40 (internal quotations omitted).)

EPA issued the long-awaited rule in 2015. *See* 80 *Fed. Reg.* 21,302 (April 17, 2015), codified at 40 *CFR* Parts 257 and 261. The rule established standards for the storage and disposal of "coal combustion residuals" (CCR, *i.e.*, coal ash) under RCRA Subtitle D, specifying requirements for new and existing CCR surface impoundments and landfills. These requirements include restrictions on location; design and operating standards; groundwater monitoring and protection; recordkeeping and reporting (including Internet posting); closure and post closure care requirements; and corrective action criteria. The rule allowed existing *unlined* CCR surface impoundments and landfills to continue to operate so long as they perform groundwater monitoring and do not contaminate groundwater above a regulated constituent's groundwater protection standard; upon such

exceedance, they were required to stop receiving CCR and either retrofit or close, except in limited circumstances. The rule also holds open the possibility that coal ash could be regulated as a hazardous waste in the future. Industry and environmental groups challenged various aspects of the rule, and those challenges were consolidated in the D.C. Circuit.

Meanwhile, in 2016 Congress amended section 4005 of RCRA (pertaining to "open dumps" of non-hazardous solid waste) to specify that a state may obtain EPA approval to administer its own coal ash regulatory programs in lieu of the EPA regulations, so long as the state's program is "at least as protective as" those regulations. 42 U.S.C. § 6945(d). And in 2018 the Trump administration granted an industry petition to amend the CCR regulations by relaxing the performance standards for groundwater monitoring and extending until 2020 the deadline by which leaking unlined surface impoundments and landfills must stop receiving CCR. 83 *Fed. Reg.* 36,435, 36,436 (July 30, 2018).

A month later, EPA's approach to coal ash storage was found wanting by the D.C. Circuit Court of Appeals. Noting initially that coal ash "contains myriad carcinogens and neurotoxins," *Utility Solid Waste Activities Group v. EPA*, 901 F.3d at 420, the court rejected all of industry's challenges designed to weaken the CCR regulations, rejected EPA's request that the case be held in abeyance to give the agency time to react to the 2016 amendment to RCRA, and agreed with the environmental groups' challenges to the regulations in three important respects. First, the court held that EPA's failure to regulate existing unlined coal ash storage units until monitoring confirmed they were contaminating groundwater was "arbitrary and contrary to RCRA." *Id.* at 429. "The record shows," the court noted, "that the vast majority of existing impoundments are unlined, [and] that unlined impoundments have a 36.2 to 57 per cent chance of leakage at a harmfully contaminating level during their foreseeable use." *Id*. at 427. Second, the court held that EPA had acted arbitrarily by treating existing impoundments with clay liners as if they were lined, even though the regulations require more effective composite liners for new facilities. *Id*. at 430-32. Third, the court held that EPA's decision to exempt from these regulations so-called "legacy ponds" – inactive impoundments at inactive energy facilities – was "unreasoned, arbitrary, and capricious." *Id.* at 434. The dangers from those impoundments, the court found, are well-known: "Notably, this very Rule was prompted by a catastrophic legacy pond failure that resulted in a 'massive' spill of 39,000 tons of coal ash and 27 million gallons of wastewater into North Carolina's Dan River." *Id.* at 433. The CCR rule thus was remanded to the agency with instructions to conform its provisions to the court's opinion.

Add a new Note 11 at the bottom of page 724:

11. EPA has issued a 13-page set of guidelines designed to foster safe and environmentally protective recycling programs for electronics waste (commonly called "E-waste"). *See Responsible Recycling (R2) Practices for Use in Accredited Certification Programs for Electronics Recyclers*, EPA (Oct. 30, 2008). The enumerated guidelines, described by the agency as "a first step in addressing this situation," *id.* p. 1,

are not legal requirements, and compliance with them is voluntary. However, the hope is that recyclers will want to comply so that they can be "certified" as such, thus making their services more attractive to prospective customers. Some have criticized the guidelines as too weak, and have noted that they could allow E-waste to be sent to developing countries. *See* Charlotte Tucker (2008) "EPA Releases Electronic Waste Guidelines: Environmental Organizations Cite Loopholes," *Environment Reporter* 39:2224. One factor that apparently has discouraged meaningful recycling and reuse of certain forms of consumer electronics, such as cell phones, smartphones, and tablets, is the current prohibition against "unlocking" them. Unlocking these devices involves the use of a software "patch" that permits an older device to be used on a cellular carrier different from the one for which it was originally marketed. The United States is reportedly the only country whose intellectual property laws prohibit the unlocking of electronic devices, but bills are pending in both houses of Congress to amend federal copyright law to bring the U.S. in line with other countries on the issue. *See* Anthony Adragna (2013) "Scrap Recycling Group Adopts Policy Supporting Electronic Device Unlocking," *Environment Reporter* 44:3321.

Add to the end of Note 5 on page 738:

EPA's 2008 "hazardous secondary materials" exemption, discussed previously, extends to materials that are recycled *off*-site. *See* 73 *Fed. Reg.* at 64,683-84.

Add to the end of the first paragraph at the top of page 740, before section 7:

EPA's detailed explanation of its basis for the hazardous waste combustor MACT rule can be found at 70 *Fed. Reg.* 59,402 (Oct. 12, 2005). Although EPA has since made some minor changes to the rule, it remains largely unchanged since its promulgation in 2005.

Add to the end of Note 1 at the bottom of page 748:

Other courts have taken a similarly broad view of the scope of this provision. *See*, *e.g.*, *Parker v. Scrap Metal Processors, Inc.*, 386 F.3d 993, 1015 (11th Cir. 2004) ("Because the operative word is 'may,' ... the plaintiffs must [only] show that there is a potential for an imminent threat of serious harm ... [as] an endangerment is substantial if it is 'serious' ... to the environment or health.") And in *Interfaith Community Organization v. Honeywell International. Inc.*, 399 F.3d 248, 259-60 (3d Cir. 2005), the Third Circuit Court of Appeals rejected the argument that the solid waste in question must be present in concentrations higher than applicable standards, or that any *particular* quantification requirement was appropriate. "Turning to a dictionary," the court noted, "we find that 'substantial' means 'having substance' and 'not imaginary.'" The court also rejected the argument that the endangerment must be to "a living population" of humans or animals; an imminent and substantial endangerment to the natural environment itself, the court

found, is sufficient to confer liability under the statute.

Add a new Note 4 on page 749:

4. Because the residues from hydraulic fracturing ("fracking") operations are not exempted from the definition of solid waste, such wastes may still be addressed under RCRA's imminent and substantial endangerment provisions.

Add to the end of Note 3 on the top of page 758:

Invoking the "polluter pays" principle, the Obama administration has strongly supported the reinstatement of the original Superfund taxes. *See*, *e.g.*, Janice Valverde (2010) "Administration Urges Congress to Enact Bill to Reinstate Long-Expired Superfund Tax," *Environment Reporter* 41:146. The prospects for any such bill remain uncertain at best.

Add to the end of Note 1 on page 766:

The Supreme Court has endorsed the approach to CERCLA divisibility taken by the Eighth Circuit in *Hercules*, noting that "apportionment is proper when 'there is a reasonable basis for determining the contribution of each cause to a single harm.' Restatement (Second) of Torts § 433A(1)(b), p. 434 (1963-1964)." *Burlington Northern and Santa Fe Railway Co. v. U. S.*, 129 S. Ct. 1870, 1881 (2009).

Add to the end of Note 2 on page 766:

In the *Burlington Northern* decision, cited above, the Supreme Court confirmed that the defendant must carry the factual burden of proving divisibility:

> Not all harms are capable of apportionment…and CERCLA defendants seeking to avoid joint and several liability bear the burden of proving that a reasonable basis for apportionment exists. …When two or more causes produce a single, indivisible harm, 'courts have refused to make an arbitrary apportionment for its own sake, and each of the causes is charged with responsibility for the entire harm.' Restatement (Second) of Torts § 433A, Comment *i,* p. 440 (1963-1964).

129 S. Ct. at 1881.