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The D.C. Circuit Takes a Wrong Turn: Redefining Solid Waste Under RCRA

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Summary

Under RCRA, EPA must impose rules for the control, management, and disposal of "hazardous waste." The definition of solid waste (DSW) issue refers to a set of complex rules for determining whether recycled hazardous secondary materials are subject to RCRA Subtitle C. The U.S. Court of Appeals for the District of Columbia (D.C.) Circuit has issued several decisions on the DSW issue; the most recent invalidated two significant provisions of EPA's most recent DSW rule, the "along for the ride" criterion and the verified recycler exclusion. This Article argues that the D.C. Circuit broke with DSW precedent and with the traditional deferential application of both *Chevron* and "arbitrary and capricious" review, and that EPA's rule should have survived. It also discusses the potential future of the DSW issue, and examines the likely outcome of the D.C. Circuit's "hard look" review as applied to a new DSW challenge.

The issue of waste management is as old as human society. Everyday activities like taking the subway to work, buying a snack from a vending machine, or ordering a product from Amazon all produce waste. Nearly every human activity results in some type of byproduct, which must then be collected, managed, controlled, and either discarded, recycled, or reused. Waste creation and management presents risks to human health and the environment through increasing rates of diseases, resource contamination, and fires and other disasters, but the generation and control of waste-containing hazardous substances presents distinct challenges. Under the Resource Conservation and Recovery Act (RCRA), the U.S. Environmental Protection Agency (EPA) has the authority to regulate "solid waste" and its subset, "hazardous waste."

Under RCRA, EPA must impose rules for the control, management, and disposal of "hazardous waste."[1] The so-called definition of solid waste (DSW) issue refers to a set of complex rules for determining whether recycled hazardous secondary materials are subject to RCRA Subtitle C management rules.[2] RCRA Subtitle C regulates hazardous waste from cradle-to-grave with prescriptive rules of conduct for generators, transporters, and management ("treatment, storage and disposal facilities").[3] Over the past 20 years, EPA has issued multiple versions of DSW rules.

The U.S. Court of Appeals for the District of Columbia (D.C.) Circuit has also issued several decisions on the DSW issue, sometimes finding EPA's rules of conduct permissible and sometimes invalidating them as unreasonable. The most recent judicial development is the D.C. Circuit's 2017 decision in *American Petroleum Institute v. Environmental Protection Agency* (*API III*),[4] in which the court invalidated two significant provisions of EPA's most recent DSW rule, the "along for the ride" criterion[5] and the verified recycler exclusion.[6] When it promulgated a new DSW rule in 2018, EPA officially vacated these two provisions.[7] Without these provisions, there are reasons to believe that EPA's rules governing the recycling process for hazardous materials leave

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1. 40 C.F.R. §261.2(c).
2. *Id.*
3. U.S. EPA, *Resource Conservation and Recovery Act (RCRA) Overview*, https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview (last updated Feb. 6, 2019).
4. 862 F.3d 50, 65, 47 ELR 20089 (D.C. Cir. 2017) (*API III*).
5. *See infra* notes 126-42 and accompanying text.
6. *See infra* notes 143-58 and accompanying text.
7. Response to Vacatur of Certain Provisions of the Definition of Solid Waste Rule, 83 Fed. Reg. 24664 (May 30, 2018).

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open the possibility of greater risks to human health and the environment.[8]

This Article begins by discussing the political and environmental climate surrounding the enactment of RCRA, then provides an overview of the environmental risks associated with management and recycling of hazardous secondary materials. It then provides legal background on RCRA, on EPA's three most recent rules on the DSW issue, and on *API III* and its aftermath. Legal standards, such as the "arbitrary and capricious" standard and the *Chevron* test are then laid out. I argue that the D.C. Circuit broke with both DSW precedent and with the traditional deferential application of both *Chevron* and the "arbitrary and capricious" tests, and that EPA's rule should have survived such review. Finally, the Article discusses the potential future of the DSW issue, and examines the likely outcome of the D.C. Circuit's "hard look" review as applied to a new DSW challenge.

The DSW issue, as reflected in the three most recent DSW rules promulgated by EPA, is tied to the political leanings of whichever administration controls the White House, with liberal administrations imposing stringent standards on the regulated community and conservative administrations relaxing these standards. The D.C. Circuit has historically deferred to the regulatory authority and technological expertise of EPA in its judicial review of DSW rules, but this precedent shifted in *API III*, where the D.C. Circuit took an exceptionally "hard look" at the Definition of Solid Waste Rule (2015 Rule).

If the D.C. Circuit applies this "hard look" review to the recent Response to Vacatur of Certain Provisions of the Definition of Solid Waste Rule (2018 Rule), the provisions of that rule may meet the same fate as their predecessors and be invalidated. Further, the D.C. Circuit's "hard look" at the 2015 Rule in *API III* may have implications for all agency action, potentially leading to a new practice of "rulemaking from the bench."

I. Statutory Framework

A. RCRA

From 1920 to 1962, the generation of municipal solid waste in the United States rapidly increased,[9] so that by the 1960s, concerns about waste disposal had become a pervasive and urgent problem.[10] The widespread issue of pollution from waste disposal had consequences from the loss of favorite "swimming holes" to contaminated drinking water, fires, and disease.[11] At the same time, society began to recognize the danger of improper hazardous waste management: in 1965, more than four million chemicals were produced in the United States, while the production of synthetic chemicals increased.[12]

The production of these chemicals left behind "toxic by-products," but the disposal of these leftover substances was generally unregulated.[13] In 1965, President Lyndon B. Johnson called for "better solutions to the disposal of solid waste," which directed federal attention toward the problem of pollution from waste.[14] As a result, the U.S. Congress passed the Solid Waste Disposal Act (SWDA) of 1965, which "formed the framework for states to better control the disposal of trash from all sources" and "set minimum safety requirements for local landfills."[15]

However, the scope of the SWDA was limited. Its primary focus was on improving waste disposal methods, rather than developing all facets of a solid waste management system.[16] Further, it failed to consider data about the quantity of waste produced, contemporary waste management technology, or the amount of local resources available to manage solid waste.[17]

When EPA was formed in 1970, the federal government began to play a more active role in waste management.[18] The Agency found that the SWDA "was not strong enough to address the dangers posed by the increasing volume of solid and hazardous waste."[19] To remedy this, Congress passed RCRA on October 21, 1976, as an amendment to the SWDA.[20] The main goals of RCRA are to

- ensure that wastes are managed in a manner that protects human health and the environment;
- reduce or eliminate, as expeditiously as possible, the amount of waste generated, including hazardous waste; and
- conserve energy and natural resources through waste recycling and recovery.[21]

RCRA was designed as a "pollution prevention measure,"[22] and represented a shift in the approach to waste management from earlier retrospective strategies to "a direct implementation model."[23] The statute provided for joint and federal and state implementation, requiring EPA to promulgate baseline requirements, and allowing states to implement their own waste management programs tailored to fit their own economic capabilities and waste needs.[24] State implementation programs must be at

8. *See infra* notes 79-82 and accompanying text.
9. Garrick E. Louis, *A Historical Context of Municipal Solid Waste Management in the United States*, 22 Waste Mgmt. Res. 306, 316 (2004).
10. U.S. EPA, 25 Years of RCRA: Building on Our Past to Protect Our Future 1 (2002) [hereinafter 25 Years of RCRA].
11. *Id.*
12. *Id.*
13. *Id.*
14. Louis, *supra* note 10.
15. 25 Years of RCRA, *supra* note 11, at 1; Pub. L. No. 89-272, 79 Stat. 992.
16. Louis, *supra* note 10.
17. *Id.*
18. 25 Years of RCRA, *supra* note 11, at 1.
19. *Id. See also* Congressional findings, 42 U.S.C. §6901.
20. 25 Years of RCRA, *supra* note 11, at 1.
21. *Id.* at 2.
22. *Id.*
23. Louis, *supra* note 10, at 317.
24. 25 Years of RCRA, *supra* note 11, at 2. *See also* Louis, *supra* note 10, at 317.

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least as stringent as federal standards; today, 48 states, one territory, and the District of Columbia are authorized to implement their own waste management plans.[25] RCRA ended open dumping, and created standards for municipal solid waste disposal and sanitary landfills.[26] RCRA also established a "cradle-to-grave management system" to monitor, track, and control hazardous waste, which dictated strict rules for anyone who "generates, recycles, transports, treats, stores, or disposes of hazardous waste."[27]

The purpose of RCRA is to "protect human health and the environment by reducing risk from waste," and substantial progress has been made toward accomplishing that goal since the statute was enacted in 1976.[28] By 1980, the number of landfills in the United States had declined by almost 50% relative to 1976.[29] By 2002, hazardous waste generation had decreased from 300 million tons to around 40 million tons, and nationwide recycling and solid waste reduction programs saved 62 million tons of trash a year from being disposed through reuse or recycling.[30] In 2013, Americans produced 254 million tons of trash and recycled about 85 million tons of this waste, yielding a national recycling rate of 34.3%.[31]

B. Recycling Hazardous Secondary Materials

The process of recycling hazardous secondary materials is accompanied by a host of environmental risks. In a 2007 study prepared in advance of the promulgation of the Revisions to the Definition of Solid Waste Rule (2008 Rule), EPA examined 208 cases in which environmental damage to human health or the environment resulted from some type of recycling activity, with the goal of characterizing "cases of environmental damage that have been attributed to some type of hazardous material recycling activity."[32] The study found that the primary type of material recycled at sites where environmental damage occurred is scrap metal (17% of cases), followed by used oil (14%) and solvents (14%), though many of the sites involved a combination of contamination-causing materials.[33] The most prevalent type of environmental damage at the sites was soil and ground contamination (85% of cases), followed by abandoned materials (69%).[34]

The study also demonstrated that the most common cause of contamination was mismanagement of recycled materials prior to their reclamation or reuse (40% of cases), followed by mismanagement of recycling residuals (34%).[35] Perhaps, the most pressing issue examined by the study was the differences between recycling conducted "on-site" (i.e., recycling performed "at the facility that generated the recyclable secondary materials") versus recycling conducted "off-site."[36] EPA discovered that of the 208 cases examined in the study, only 6% involved purely "on-site" recycling, while another 3% involved a combination of "on-site" and "off-site" recycling, meaning that the vast majority of contamination cases, 91%, were associated with "off-site" recycling.[37] However, the Agency noted that this data could have resulted because "on-site" recycling may be a less common practice, or because contamination associated with "on-site" recycling may not be as well-documented.[38]

In addition to the environmental damage resulting from recycling hazardous secondary materials, hazardous waste recycling also poses a disproportionate threat to minority communities. A 2007 study on toxic wastes and environmental justice concerns revealed that 40 out of 44 states with hazardous waste facilities have disproportionately high percentages of people of color (Hispanics, African Americans, and Asians/Pacific Islanders) living within a three-kilometer radius of the facilities.[39] Further, four out of every five hazardous waste facilities are located in a metropolitan area, and areas hosting these facilities have a significantly greater population of people of color (57%) than areas without facilities (37%).[40] The study concluded that race is "a significant and robust predictor of commercial hazardous waste facility locations when socioeconomic factors are taken into account."[41]

Certain standard practices are used by responsible waste generators in order to mitigate the risks associated with recycling hazardous waste.[42] Both large and small waste generators who send their waste off-site for recycling may perform audits of the third-party vendors who handle their secondary materials.[43] Audits represent "part of the due diligence needed to prevent future Superfund liability," and help waste generators "maintain public images of corporate responsibility."[44]

Environmental audits may be performed by outside consultants or by the generators themselves, and involve various processes and procedures.[45] However, all audits generally include topics such as site history, history of environmental compliance, compliance with required permits, screening of waste management practices, possession of pollution liability insurance, and provisions for closure and post-closure care.[46] Besides auditing, waste generators may

25. 25 Years of RCRA, *supra* note 11, at 4.
26. Louis, *supra* note 10, at 317.
27. 25 Years of RCRA, *supra* note 11, at 3.
28. *Id.* at 15.
29. Louis, *supra* note 10, at 317.
30. 25 Years of RCRA, *supra* note 11, at 15.
31. U.S. EPA, *Municipal Solid Waste*, https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/ (last updated Mar. 29, 2016).
32. U.S. EPA, An Assessment of Environmental Problems Associated With Recycling of Hazardous Secondary Materials 2 (2007) [hereinafter Problems Study].
33. *Id.* at 6.
34. *Id.* at 7.
35. *Id.* at 8.
36. *Id.* at 9.
37. *Id.*
38. *Id.*
39. United Church of Christ, Toxic Wastes and Race at Twenty 1987-2007, at xi (2007).
40. *Id.*
41. *Id.*
42. U.S. EPA, An Assessment of Good Current Practices for Recycling of Hazardous Secondary Materials 10 (2006).
43. *Id.*
44. *Id.*
45. *Id.*
46. *Id.* at 11.

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turn to practices such as material specifications, drop-off and tracking protocols, and recycling certificates, all of which help generators control their hazardous secondary materials and reduce the risk of an accidental release.[47]

II. Legal Context

A. RCRA and the DSW

RCRA[48] gives EPA the authority to regulate solid and hazardous waste from "cradle-to-grave," including generation, transportation, treatment, and disposal.[49] Under RCRA, solid waste is defined as "garbage, refuse, sludge . . . and *other discarded material*."[50] Hazardous wastes are a subset of solid wastes, and are defined as wastes that,

> because of [their] quantity, concentration, or physical, chemical, or infectious characteristics may—
>
> (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
>
> (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.[51]

If a material qualifies as a hazardous waste, it is subject to regulation under RCRA Subtitle C.[52] Therefore, the scope of EPA's authority to control hazardous wastes depends upon the DSW.[53] The DSW issue involves whether or not the processing of hazardous secondary materials, including spent materials, sludges, byproducts, and scrap metals, are subject to Subtitle C management rules.[54]

Since 1980, EPA has interpreted "solid waste" under its Subtitle C regulations to include two classes of discarded hazardous secondary materials: those intended for permanent treatment and disposal, and those intended for recycling.[55] This interpretation is supported both by the statute and the legislative history, which suggest that Congress intended for EPA to regulate certain materials destined for recycling as solid and hazardous wastes.[56] Therefore, generators of hazardous secondary materials cannot avoid Subtitle C management merely by claiming that these materials will be recycled.[57]

Under RCRA, EPA divides recycling of hazardous secondary materials into three categories. The first category of materials, those which are "use[d]," are materials "[e]mployed as an ingredient . . . in an industrial process to make a product"; these materials are generally exempted from Subtitle C regulations.[58] The second category of materials, those which are "reuse[d]," are materials "[e]mployed . . . as an effective substitute for a commercial product," and also are not typically subject to Subtitle C.[59] However, materials that are "reclaimed," a type of recycling that occurs when secondary materials are "processed to recover a usable product, or . . . regenerated," are almost always subject to Subtitle C.[60]

B. The 2008 Rule

In October 2008, EPA under President George W. Bush promulgated the 2008 Rule.[61] The 2008 Rule delineated whether the subset of hazardous secondary materials that are recycled through reclamation are subject to Subtitle C rules.[62] In the rule, EPA adopted two general exclusions, which exempted reclaimed hazardous secondary materials from the DSW and, therefore, from Subtitle C rules, in two specific circumstances.[63] Both exclusions depend on whether the reclamation was performed by a third party.[64] The first exclusion, the "generator-controlled exclusion," governed reclamation performed by the waste generator,[65] either in a non-land-based unit or land-based unit.[66]

The second exclusion, known as the "transfer-based exclusion," allowed exemption from Subtitle C rules if hazardous secondary materials are transferred to and reclaimed by a third-party recycler.[67] Under this exclusion, the generator could either send the materials to a third-party recycler with a RCRA permit (or interim status), or could alternatively send the materials to a recycler without a permit, if the generator made "reasonable efforts to ensure that [the chosen] reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it."[68] These "reasonable efforts" required the generator to investigate and affirmatively answer specific questions about the reclaimer.[69] In general, the transfer-based exclusion allowed hazardous waste creators and recyclers to avoid Subtitle C regulation as long as they were not

47. *Id.* at 21-23.
48. 42 U.S.C. §§6901-6992k.
49. U.S. EPA, *supra* note 1.
50. 42 U.S.C. §6903(27) (emphasis added).
51. *Id.* §6903(5).
52. *Id.* §§6921-6939g.
53. Definition of Solid Waste, 80 Fed. Reg. 1694, 1696 (Jan. 13, 2015).
54. 40 C.F.R. §261.2(c).
55. 80 Fed. Reg. at 1696.
56. *Id.*
57. *Id.*
58. 40 C.F.R. §261.1(c)(5), (7).
59. *Id.*
60. *Id.* §261.1(c)(4), (7).
61. Revisions to the Definition of Solid Waste, 73 Fed. Reg. 64668 (Oct. 30, 2008).
62. *Id.*
63. *Id. See also D.C. Circuit Vacates Portions of EPA's Definition of Solid Waste Rule*, Katten, July 13, 2017, https://www.kattenlaw.com/dc-circuit-vacates-portions-of-epas-definition-of-solid-waste-rule.
64. API III, 862 F.3d 50, 64, 47 ELR 20089 (D.C. Cir. 2017).
65. 40 C.F.R. §261.4(a)(23).
66. 73 Fed. Reg. at 64668.
67. 40 C.F.R. §261.4(a)(24).
68. *Id.* §261.4(a)(24)(v)(B); 73 Fed. Reg. at 64668.
69. *API III*, 862 F.3d at 65.

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the subject of any recent enforcement actions and had the adequate infrastructure to recycle the material.[70]

Under the 2008 Rule, to qualify for either the generator-controlled exclusion or the transfer-based exclusion, the generator was required to meet four "legitimacy criteria." First, the hazardous secondary material must "provide a useful contribution to the recycling process or to a product of the recycling process."[71] Second, the recycling process must "produce a valuable product or intermediate."[72] Third, the hazardous secondary material must be "manage[d] as a valuable commodity" by the generator and the recycler.[73] Fourth, the levels of toxins in the product of the recycling process must be comparable to those found in analogous products.[74]

The first two criteria are mandatory,[75] while the second two "must be considered but not necessarily satisfied."[76] The purpose of the legitimacy criteria is to distinguish true recycling from "sham recycling," a process in which generators claim to recycle material to avoid Subtitle C regulations but actually dispose of it.[77]

Environmentalists found that the exclusions in the 2008 Rule posed unique risks to both the environment and to minority communities.[78] In a study conducted by EPA in advance of the adoption of its 2015 Rule, the Agency found that hazardous secondary materials sent to be recycled are often "physically and chemically similar, if not identical . . . to hazardous wastes sent for treatment and disposal," and, therefore, involved threats of exposure, both carcinogenic and noncarcinogenic health consequences, and disasters such as fires and explosions.[79]

EPA under President Barack Obama found that the 2008 Rule's exclusions only exacerbated these threats due to less oversight, incentives for generators to compile larger amounts of hazardous secondary materials, a lack of established guidelines for waste control, and reduced opportunities for public participation.[80] Further, these threats may disproportionately affect minority and low-income communities: both on a national and state level, more than 50% of the high-risk facilities are located in areas with higher minority and low-income populations.[81] Lastly, the 2008 Rule involves environmental justice risks because it eliminates the opportunity for community input by removing the RCRA permit requirement for some excluded facilities.[82]

70. *Id.* at 67.
71. 73 Fed. Reg. at 64701.
72. *Id.* at 64702.
73. *Id.* at 64703.
74. *Id.* at 64704.
75. *Id.* at 64700.
76. *Id.* at 64704.
77. *Id.* at 64670.
78. *See infra* notes 84-86 and 90-93 and accompanying text.
79. U.S. EPA, Executive Summary, Potential Adverse Impacts Under the Definition of Solid Waste Exclusions (Including Potential Disproportionate Adverse Impacts to Minority and Low-Income Populations) 4 (2014).
80. *Id.* at 4-5.
81. *Id.* at 10-11.
82. *Id.* at 14.

C. *The 2015 Rule*

In response to the 2008 Rule's transfer-based exclusion, the Sierra Club, the largest grassroots environmental organization in the United States,[83] submitted an administrative petition under RCRA §7004(a)[84] to the EPA Administrator, requesting that the Agency stay the implementation of the 2008 Rule.[85] At the same time, both the Sierra Club and the American Petroleum Institute (API)[86] filed judicial petitions for review under RCRA §7006(a)[87] challenging the 2008 Rule in the D.C. Circuit.[88]

In its petition, the Sierra Club argued that the 2008 Rule increased threats to public health and the environment without yielding compensatory benefits, and disagreed with the Agency's findings that the rule would have no adverse effect on minority communities and children's health.[89] Specifically, the Sierra Club argued that EPA's failure to define "contained" and "significant release" in the 2008 Rule was arbitrary and capricious.[90] The lack of these definitions made the rule so vague that generators and recyclers were left uncertain about compliance, and state inspectors had no basis for enforcement.[91] The Sierra Club also contended that EPA had violated Executive Order No. 12898 by failing to complete an environmental justice analysis.[92] An "industry coalition" subsequently submitted a letter to EPA in response to the Sierra Club petition, arguing that the 2008 Rule was lawful and promoted important economic and conservation benefits.[93]

With the change in administration, the Obama EPA settled with the Sierra Club and agreed to revise the DSW rule to address these environmentalist objections.[94] In 2015, a year before the next change in the political party occupying the White House, EPA adopted the 2015 Rule, which replaced the transfer-based exclusion with alternate RCRA Subtitle C regulations for hazardous secondary materials recycled through reclamation.[95] In response to the Sierra Club's concerns, EPA conducted a draft environmental justice analysis for the 2011 proposed rule,[96] and added a codified definition of "contained" to the 2015 Rule.[97]

83. Sierra Club, *About the Sierra Club*, https://www.sierraclub.org/about-sierra-club (last visited Mar. 31, 2019).
84. 42 U.S.C. §6974(a).
85. 80 Fed. Reg. at 1700.
86. In its suit, API claimed that EPA had erroneously determined that certain petroleum catalysts are hazardous wastes when recycled. After EPA passed the 2015 Rule, which made spent petroleum catalysts eligible for the generator-controlled and verified recycler exclusions, API's challenge was deemed moot. *Id.*
87. 42 U.S.C. §6976(a).
88. 80 Fed. Reg. at 1700.
89. *Id.*
90. Petition From Lisa Gollin Evans and Deborah Goldberg, Staff Attorneys, to Lisa Jackson, Administrator, U.S. EPA (Jan. 29, 2009) (on file with author).
91. *Id.* at 7.
92. *Id.* at 9.
93. 80 Fed. Reg. at 1700.
94. *Id.* at 1701.
95. *Id.* at 1698.
96. *Id.* at 1702.
97. *Id.* at 1695.

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In the 2015 Rule, EPA replaced the transfer-based exclusion with the "verified recycler exclusion," which is similar to its predecessor but differs in two significant ways.[98] First, under the verified recycler exclusion, the generator must meet certain "emergency preparedness" standards before transferring the hazardous secondary materials to the third-party reclaimer.[99] Among other requirements, generators must notify the state environmental agency, ensure that all hazardous secondary materials are "contained,"[100] and maintain records of shipments and confirmation of receipt for transfers of hazardous secondary materials to third-party recyclers.[101] Further, the generator's facility must be "maintained and operated to minimize the possibility of a fire, explosion, or any unplanned . . . release of hazardous secondary materials" that "could threaten human health and the environment"[102]; and the generator must have in place certain emergency preparedness processes and equipment.[103]

Second, the verified recycler exclusion removes the "reasonable efforts" provision of the transfer-based exclusion, and instead requires the generator to send their hazardous secondary materials to a reclaimer with either a RCRA permit (or interim status) or a RCRA variance.[104] A RCRA variance is an EPA-approved authorization to run a third-party "reclamation facility," and includes permits to operate treatment, storage, and disposal facilities (TSDFs).[105] The 2008 generator-controlled exclusion required generators to meet the same "emergency preparedness" standards, but did not require a permit, interim, or variance, meaning that under the generator-controlled exclusion, reclamation facilities are not required to be TSDFs, and therefore do not need to apply for permits or post-financial assurances.[106]

The 2015 Rule also revised the definition of "legitimate" recycling, requiring all reclamation of hazardous secondary materials to meet certain legitimacy criteria to distinguish between "true" and "sham recycling."[107] EPA's long-standing stance on "sham recycling" stems from a 1989 memo by Sylvia K. Lowrance, which identified several factors for evaluating recycling, all designed to determine "whether the secondary material is 'commodity-like,'" or whether it is seen as merely a valueless byproduct.[108] The legitimacy test in the 2015 Rule is drawn from the Lowrance memo, and is rooted in the principle that recycling should involve some "recognizable benefit."[109]

Legitimate recycling must meet four mandatory criteria, or be deemed "sham recycling" subject to Subtitle C regulation.[110] These criteria are nearly identical to the criteria contained in the 2008 Rule, except that all four are mandatory.[111] First, the hazardous secondary material must "provide a useful contribution to the recycling process."[112] Second, "[t]he recycling process must produce a valuable product or intermediate."[113] Third, the persons handling the hazardous secondary material must "manage it as a valuable commodity."[114] Where there is an analogous raw material, the secondary hazardous material must be managed "in an equally protective manner"; where there is no analogous raw material, the secondary material must be contained.[115] Fourth, the recycled product "must be comparable to a legitimate product or intermediate."[116]

The fourth and final criterion attempts to prevent the presence of hazardous constituents that provide no benefit to products, and instead are merely "along for the ride."[117] To ensure that the product of the recycling process is comparable to a legitimate product or intermediate, certain requirements must be met.[118] Where there is an analogous product or intermediate, finished recycled products may only include hazardous secondary materials if they are necessary to make the product effective, and either must exhibit no hazardous "characteristic" that is absent from its analogue; or must either contain concentrations of hazardous constituents "comparable to or lower than" those found in analogous products, or meet "widely-recognized community standards" for levels of toxins.[119] Where there is no analogous product, either the finished recycled product must be a commodity that meets "widely recognized standards and specifications," or the hazardous secondary materials being recycled must be returned to the original process from which they were generated.[120]

Even if the finished recycled product fails to meet the requirements outlined in the fourth criterion, it may still be found legitimate under an exception.[121] After conducting an assessment, the recycler must prepare documentation explaining why the product qualifies for the exception.[122] Under the exception, the finished recycled product may be shown to be legitimate in a number of ways, including a "lack of exposure from the product," a "lack of bioavailability of toxins in the product," or any other relevant considerations demonstrating that the product does not contain constituents that pose an environmental risk.[123] The documentation explaining why the product is legiti-

98. API III, 862 F.3d 50, 65, 47 ELR 20089 (D.C. Cir. 2017); 40 C.F.R. §261.4(a)(24).
99. *API III*, 862 F.3d at 65.
100. 40 C.F.R. §260.10.
101. *Id.* §261.4(a)(24).
102. *Id.* §261.410(a).
103. *See id.* §261.410(b)-(f).
104. *Id.* §261.4(a)(24).
105. API III, 862 F.3d 50, 65, 47 ELR 20089 (D.C. Cir. 2017).
106. *Id.*
107. *Id.* at 57.
108. Memorandum From Sylvia K. Lowrance, Director, Office of Solid Waste, to Hazardous Waste Management Division Directors, F006 Recycling (Apr. 26, 1989) (OSWER Directive 9441.1989(19)).
109. 80 Fed. Reg. at 1722.
110. 40 C.F.R. §261.2(g).
111. *See supra* Section II.B., para. 3.
112. 40 C.F.R. §260.43(a)(1).
113. *Id.* §260.43(a)(2).
114. *Id.* §260.43(a)(3).
115. *Id.*
116. *Id.* §260.43(a)(4).
117. 80 Fed. Reg. at 1726.
118. 40 C.F.R. §260.43(a)(4).
119. *Id.* §260.43(a)(4)(i).
120. *Id.* §260.43(a)(4)(ii).
121. *Id.* §260.43(a)(4)(iii).
122. *Id.*
123. *Id.*

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mate must be maintained at the site for three years after recycling operations have ended.[124]

D. American Petroleum Institute v. Environmental Protection Agency

With the 2015 Rule's swing back to greater regulation, both industry petitioners and environmental petitioners brought challenges to the D.C. Circuit. Industry petitioners, including API, argued that both the legitimacy test and the verified recycler exclusion exceeded EPA's RCRA authority.[125] Environmental petitioners, including Sierra Club, argued that the verified recycler exclusion was too permissive, and called for EPA to add containment and notification conditions to pre-2008 Subtitle C exclusions.[126] The petitions were consolidated and decided in July 2017 in *API III*. The central issue is now the D.C. Circuit's invalidation of the "along for the ride" legitimacy criterion and the verified recycler exclusion, both of which are discussed below.

1. Invalidation of "Along for the Ride" Criterion

Industry petitioners challenged both the third and fourth legitimacy criteria, claiming that their application resulted in EPA "unlawfully regulat[ing] non-discarded materials."[127] The court found that the third criterion, which requires secondary materials to be handled as "valuable commodit[ies]," was not unreasonable as industry petitioners claimed, and upheld it.[128] However, the court invalidated the fourth criterion, known as the "along for the ride" criterion, for failing to draw a clear line between "true" and "sham" recycling.[129] Under the "along for the ride" criterion, recycled products lacking recognizable analogues, failing to satisfy customer specifications or meet commodity standards, and not derived from closed-loop processes are ultimately treated as "discarded material" under the DSW.[130]

The court found the rule's treatment of recycled products with analogues unreasonable, holding that the "comparable or lower than" standard is unsupported by scientific evidence.[131] Though EPA prepared a report purporting to demonstrate the environmental risk posed by recycled products with levels of hazardous constituents higher than their comparable analogues, the court rejected this study because it did not prove that such products would be automatically discarded.[132] Such a presumption can "be sustained without an evidentiary showing . . . so long as the agency articulates a rational basis," but the court found that EPA failed to meet this rational basis by failing to clearly demonstrate that recycled products with higher levels of hazardous constituents than their analogues are automatically "sham" products destined for discard.[133]

The court also objected to the rule's treatment of recycled products without analogues. Under the rule, even if the product and its analogue share the same hazardous characteristics, the quantity of hazardous constituents in the products must have been "comparable to or lower than" its analogue's, or alternatively must meet "widely-recognized commodity standards and specifications."[134] Otherwise, the product is deemed discarded and subject to Subtitle C.

The court noted that the record contains examples of hazardous secondary materials that are beneficially recycled into valuable products, but contain trace amounts of hazardous constituents that do not contribute to the value of the final product.[135] Therefore, the mere fact of the presence of hazardous constituents in a final recycled product is not a reasonable basis for dubbing the product a "sham."[136] To do so would require costly procedures to extract tiny amounts of hazardous constituents, when failing to do so imposes no health or environmental risk, therefore disregarding the rule's objective of "encouraging properly conducted recycling."[137] The rule failed to consider whether these "incremental contaminants" actually pose a threat to human health and the environment.[138]

Further, the court found that the exception allowing recycled products to qualify as legitimate if certain documentation is prepared demonstrating a lack of significant environmental risk, fails to save the rule.[139] The court noted that this exception reflected EPA's intention to determine whether a recycled product "will be used beneficially in a manner that reasonably protects against the risks its residual hazardous constituents present."[140] If so, the recycled product is legitimate; if not, the true purpose of the recycling operation is disposal and the recycling is a "sham."[141] However, due to the "draconian character of the procedures" and recordkeeping requirements recyclers must satisfy in order to qualify as legitimate, the court rejected the exception.[142] The court therefore vacated the "along for the ride" criterion "insofar as it applies to all hazardous secondary materials via §261.2(g)," the section of RCRA that defines sham recycling.[143]

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124. *Id*.
125. API III, 862 F.3d 50, 56, 47 ELR 20089 (D.C. Cir. 2017). *See also* Opening Brief of Industry Petitioners, American Petroleum Inst. v. Environmental Prot. Agency, 862 F.3d 50 (D.C. Cir. 2017) (No. 09-1038), 2016 WL 3402601.
126. *API III*, 862 F.3d at 56.
127. Opening Brief of Industry Petitioners, *supra* note 126, at 20.
128. *API III*, 862 F.3d at 58.
129. *Id*.
130. *Id*. at 59.
131. *Id*. at 62.
132. *Id*. (citing Problems Study, *supra* note 33).
133. *Id*. at 63 (quoting Secretary of Labor v. Keystone Coal Mining Corp., 151 F.3d 1096, 1101 (D.C. Cir. 1998)) (citing Final Rule, 80 Fed. Reg. at 1726, 1729).
134. *Id*. at 59 (citing 40 C.F.R. §260.43(a)(4)(i)(B)).
135. *Id*. at 59-60.
136. *Id*. at 60.
137. *Id*. (citing 42 U.S.C. §6902(a)(6)).
138. *Id*.
139. *Id*.
140. *Id*. (citing 80 Fed. Reg. at 1729).
141. *Id*. at 61 (citing 80 Fed. Reg. at 1729).
142. *Id*. ("[P]aperwork is not alchemy; a legitimate product will not morph into waste if its producer fails to file a form (or loses a copy two years later)") (citing Opening Brief of Industry Petitioners, *supra* note 126, at 29, 33)).
143. *Id*. at 75. *See also* 40 C.F.R. §261.2(g).

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2. Invalidation of the Verified Recycler Exclusion

Because the verified recycler exclusion imposed additional burdens on recyclers without a sufficient reasonable basis in the court's opinion, the court invalidated it and reinstated the transfer-based exclusion.[144] In *American Mining Congress v. Environmental Protection Agency* (*AMC I*), the D.C. Circuit invalidated a rule prohibiting reclamation of certain hazardous secondary materials "[that] are so 'waste-like' that reclaiming them is equivalent to discard."[145] EPA implemented both the verified recycler exclusion and the transfer-based exclusion in response to the *AMC I* decision, creating exclusions for specific materials and processes.[146] Thus, the court found, EPA was obliged to create these exclusions in order to retain a rule that improperly treats materials destined for reuse as discarded.[147]

EPA must demonstrate that it acted reasonably in amending the transfer-based exclusion into the verified recycler exclusion, both by adding emergency preparedness requirements and replacing the "reasonable efforts" option with the variance procedure.[148] The court applied the "arbitrary and capricious" standard as interpreted by *Federal Communications Commission v. Fox Television Stations, Inc*.[149] The *Fox* Court's analysis requires an agency to show that "the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better" than the old one.[150] Further, for reasons to be considered "good" under the *Fox* test, they must be "justified by the rulemaking record."[151] EPA's reason for implementing emergency preparedness provisions is to "reduce the risk of discard and to test the generator's intent to recycle."[152] Under the *Fox* test, the court found that because hazardous secondary materials are generally expensive to recycle, it is reasonable for EPA to require the additional emergency preparedness provisions.[153]

However, the court found that the removal of the "reasonable efforts" provision of the transfer-based exclusion, and its replacement with the variance requirement, was unreasonable under the *Fox* test.[154] EPA reasoned that this additional oversight is necessary to overcome "perverse incentives . . . to over-accumulate [ ] hazardous secondary material" rather than recycling it.[155] In support of this proposition, the Agency cited several studies theorizing that due to economic incentives, third-party reclaimers pose a greater risk of discard than on-site reclaimers.[156]

However, the court found that these studies "fail to provide sufficient linkage between theory, reality, and the result reached," offering no actual data to demonstrate a clear link between third-party reclamation and an increased incidence of discard.[157] Though courts commonly defer to an agency's decision to rely on imperfect information, this deference is only appropriate where that information actually justifies the agency action.[158] Therefore, because the advanced administrative approval required by the verified recycler exclusion was unreasonable due to a lack of data, the court invalidated it (with the exception of the emergency preparedness requirements) and reinstated the transfer-based exclusion.[159]

3. Dissent

In the dissent, Circuit Judge David Tatel argued that the court's invalidation of the "along for the ride" criterion and the verified recycler exclusion was inconsistent "with the [Administrative Procedure Act's (APA's)] highly deferential standard of review and with the principles governing judicial review of facial challenges to rules."[160]

Judge Tatel argued that the court's invalidation of the "along for the ride" criterion relied on an incorrect application of the "arbitrary and capricious" standard. He maintained that under the standard, technical judgments like the question of "whether the presence of hazardous constituents provides sufficient evidence of sham recycling" are properly delegated to the Administrator.[161]

Further, he wrote, the court's decision was inconsistent with past precedent on the DSW issue. The 2015 Rule's requirement that recycled products with analogues meet a "comparable to or lower than" standard for hazardous constituents was consistent with *Safe Food & Fertilizer v. Environmental Protection Agency*, in which the court upheld a technical judgment contingent on whether recycled products are chemically similar to analogous products.[162] Judge Tatel also argued that the court's invalidation of the exception requiring recyclers to prepare documentation conflicted with *American Chemistry Council v. Environmental Protection Agency*, in which the court determined that the EPA Administrator acted reasonably in requiring the regulated entity to prove the lack of a hazardous characteristic.[163]

144. *API III*, 862 F.3d at 75.
145. *Id.* at 64 (quoting Hazardous Waste Management System; Definition of Solid Waste, 50 Fed. Reg. 614, 619 (Jan. 4, 1985)) (citing American Mining Cong. v. Environmental Prot. Agency, 824 F.2d 1177, 1183-85, 17 ELR 21064 (D.C. Cir. 1987) (*AMC I*)).
146. *Id.*
147. *Id.* at 65 (citing *AMC I*, 824 F.2d at 1185).
148. *Id.* at 66.
149. *Id.* (citing Federal Commc'ns Comm'n v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009)).
150. *Id.* (quoting *Fox*, 556 U.S. at 515).
151. *Id.* (quoting Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 42, 13 ELR 20672 (1983)).
152. *Id.*
153. *Id.* at 67.
154. *Id.* at 72.
155. *Id.* at 68 (citing 80 Fed. Reg. at 1708).
156. *Id.* at 68-69.
157. *Id.* at 68 (citing Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43, 13 ELR 20672 (1983)).
158. *Id.* at 70 (citing Cablevision Sys. Corp. v. Federal Commc'ns Comm'n, 649 F.3d 695, 717 (D.C. Cir. 2011)).
159. *Id.* at 75 (Tatel, J., dissenting).
160. *Id.* at 76.
161. *Id.* at 78.
162. *Id.* at 77 (citing Safe Food & Fertilizer v. Environmental Prot. Agency, 350 F.3d 1263, 1269 (D.C. Cir. 2004)).
163. *Id.* at 79 (citing American Chemistry Council v. Environmental Prot. Agency, 337 F.3d 1060, 1065-66 (D.C. Cir. 2003)).

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Judge Tatel then argued that the court improperly struck down the verified recycler exclusion, which "shifts oversight of off-site recyclers from the industry to the Administrator."[164] He maintained that the EPA studies in the rulemaking record provided sufficient empirical evidence for the Agency's conclusion that off-site recycling carries a greater risk of discard.[165] Further, the court had erred in disregarding these studies due to a lack of corroborating data, because "[r]easoned decisionmaking can use an economic model to provide useful information about economic realities."[166] By failing to defer to the Agency in a technical matter under its authority, the court had subverted RCRA's "careful balance of authority between EPA and the court."[167]

E. API III *Reconsidered*

In April 2018, the D.C. Circuit issued an opinion clarifying its decision in *API III*.[168] In this case, *American Petroleum Institute v. Environmental Protection Agency* (*API IV*), the court considered petitions by both parties to consider whether the vacated components should be severed and affirmed.[169] The court severed and affirmed EPA's decision in the 2015 Rule to allow spent catalysts to qualify for the transfer-based exclusion.[170] Further, the court vacated the "along for the ride" criterion in its entirety, rather than only as applied to §261.2(g).[171] Finally, the court clarified the effects of its vacatur of the "along for the ride" criterion: Factor 3 would remain mandatory, but Factor 4, the "along for the ride" criterion, would only need to be "considered" as in the 2008 Rule.[172]

F. The 2018 Rule

In May 2018, EPA under President Donald Trump published the new 2018 Rule, revising the DSW regulations to comply with the vacaturs ordered by the D.C. Circuit in *API III* and *API IV*.[173] In the 2018 Rule, the Trump EPA reinstated the transfer-based exclusion of the 2008 Rule, with certain modifications.[174] The emergency preparedness requirements of the verified recycler exclusion were left intact per the *API III* court's opinion[175]; but the verified recycler exclusion's variance requirement, which required generators to send their hazardous secondary materials to reclaimers with either a RCRA TSDF permit or a variance, was completely vacated and replaced with the "reasonable efforts" provision of the 2008 Rule, which allows generators to send hazardous secondary materials to reclaimers that are not TSDFs upon making "reasonable efforts" to determine that the reclaimer intends to legitimately reclaim the material.[176]

Further, the 2018 Rule vacates the 2015 Rule's "along for the ride" legitimacy criterion in its entirety. The 2018 Rule replaced the "along for the ride" criterion with the 2008 version of the fourth legitimacy criterion, which requires that the levels of toxins in reclaimed products must be comparable to those found in analogous products; as in the 2008 Rule, this criterion must be considered, but is not mandatory.[177] The 2018 Rule's legitimacy criteria and transfer-based exclusion are virtually identical to those in the 2008 Rule.

Notice-and-comment procedures were not required for the 2018 Rule, which is effective immediately.[178] Section 553 of the APA provides that "when an agency for good cause finds that notice and public procedures are impractical, unnecessary or contrary to the public interest," the agency may dispense with notice-and-comment procedures when issuing a rule.[179] EPA found that there is good cause for forgoing notice and comment because the revisions "simply undertake the ministerial task of implementing court orders vacating these rules and reinstating the prior versions."

Further, the 2018 Rule is effective immediately in accordance with §553(d) of the APA, which provides that final rules shall not become effective until 30 days after publication in the *Federal Register*, "except . . . as otherwise provided by the agency for good cause."[180] Because the 2018 Rule merely implements the D.C. Circuit's orders of vacatur in *API III* and *API IV* by reinstating sections of the 2008 Rule, EPA found that there was good cause for making the 2018 Rule effective immediately.[181]

G. California Communities Against Toxics v. Environmental Protection Agency

In June 2018, a group of eight environmental nongovernmental organizations filed a petition for review of the 2008 Rule, in response to EPA's promulgation of the 2018 Rule and the D.C. Circuit's decisions in *API III* and *API IV*.[182] According to electronic correspondence from Earthjustice attorneys, the nation's largest nonprofit environmental

164. *Id.* at 80.
165. *Id.* at 81.
166. *Id.* at 80 (quoting American Public Gas Ass'n v. Federal Power Comm'n, 567 F.2d 1016, 1037 (D.C. Cir. 1977)).
167. *Id.* at 81.
168. 883 F.3d 918, 919, 48 ELR 20038 (D.C. Cir. 2018) (*API IV*).
169. *Id.*
170. *Id.* at 922.
171. *Id.* at 923. *See also* 40 C.F.R. §261.2(g).
172. *API IV*, 883 F.3d at 923.
173. Response to Vacatur of Certain Provisions of the Definition of Solid Waste Rule, 83 Fed. Reg. 24664 (May 30, 2018).
174. *Id.* at 24665.
175. API III, 862 F.3d 50, 67, 47 ELR 20089 (D.C. Cir. 2017).
176. 83 Fed. Reg. at 24665.
177. *Id.*
178. *Id.* at 24666.
179. *Id.* at 24664 (citing 5 U.S.C. §553(b)(3)(B)).
180. *Id.* (citing 5 U.S.C. §553(d)).
181. *Id.*
182. Petition for Review at 1-2, California Cmtys. Against Toxics v. Environmental Prot. Agency, No. 18-1163 (D.C. Cir. filed June 22, 2018) (petitioner nongovernmental organizations are California Communities Against Toxics, Clean Air Council, Community In-Power and Development Association, Coalition for a Safe Environment, Louisiana Bucket Brigade, Louisiana Environmental Action Network, Sierra Club, and Texas Environmental Justice Advocacy Services).

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law organization,[183] to former EPA Administrator Scott Pruitt, the petition was brought to pursue judicial review of the transfer-based exclusion and initiate new rulemaking.[184] Environmental petitioners argue that the transfer-based exclusion should be reviewed because EPA never disproved its scientific findings that the exclusion "is legally defective and dangerous," and because the Agency has never demonstrated that refinery spent catalysts can be managed safely under the exclusion.[185] Therefore, the environmental petitioners request that EPA withdraw the transfer-based exclusion and initiate notice-and-comment rulemaking to determine whether the exclusion is lawful and protective of human health and the environment, in compliance with RCRA.[186]

This case, *California Communities Against Toxics v. Environmental Protection Agency*, was argued before the D.C. Circuit on April 9, 2019.[187] During the oral argument, the court questioned whether environmental petitioners had the requisite actual or imminent harm to establish standing.[188]

III. Decades of Consistent Application of *Chevron* and "Arbitrary and Capricious" Review

A. *Legal Standards*

1. *Chevron* Doctrine

In *Chevron, USA, Inc. v. Natural Resources Defense Council, Inc.*, the U.S. Supreme Court established a test that courts now use to review an agency's interpretation of a statute it is bound to administer.[189] When applying the *Chevron* test, a reviewing court must engage in two inquiries, commonly referred to as "*Chevron* step one" and "*Chevron* step two."[190] In step one, courts must ask whether Congress "has directly spoken to the precise question at issue."[191] If Congress' intent is clear, the inquiry stops there; the court, as well as the regulating agency, "must give effect to the unambiguously expressed intent of Congress."[192]

If the statute does not mention the specific question at issue, however, or is ambiguous on the matter, the court moves to step two.[193] In step two, the court must ask "whether the agency's answer is based on a permissible construction of the statute," or, in essence, whether the agency's interpretation of the statute is reasonable.[194] The *Chevron* Court notes that agency interpretations of statutes "are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute."[195] Therefore, as long as the agency's reading of a statute is "reasonable and consistent with the statutory purpose," the reviewing court must defer to the agency's interpretation.[196]

In *United States v. Mead*, the Supreme Court narrowed the *Chevron* test, adding a preliminary "step zero" in its application.[197] Thus, before steps one and two of *Chevron* analysis, a reviewing court must initially determine whether the agency has the authority to make binding legal rules.[198]

2. "Arbitrary and Capricious" Review

The APA governs judicial review of agency decisions. Under the Act, a reviewing court has the authority to "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[199] Under the "arbitrary and capricious" standard, the agency is required to examine the relevant data and provide a satisfactory explanation for its decision, including "a rational connection between the facts and the choice made."[200]

The Supreme Court provided several examples of situations in which agency rules would be judged "arbitrary and capricious" in *Motor Vehicle Manufacturers Ass'n of the United States, Inc. v. State Farm Mutual Automobile Insurance Co.*, including if the agency

> relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.[201]

If the reviewing court finds such deficiencies in the rulemaking record, it may not invent a reasonable basis for the agency's action if the agency has failed to provide one.[202]

183. Earthjustice, *Our Story*, https://earthjustice.org/about (last visited Mar. 31, 2019).
184. Petition from Khushi J. Desai, Staff Attorney, Earthjustice, to Scott Pruitt, Administrator, U.S. EPA (June 12, 2018) [hereinafter Earthjustice Petition] (on file with author).
185. *Id.*
186. *Id.*
187. *See* Oral Argument Calendar, United States Court of Appeals: District of Columbia Circuit (May 6, 2019), https://www.cadc.uscourts.gov/internet/sixtyday.nsf/fullcalendar?OpenView&count=1000.
188. *See* Oral Argument Recordings, United States Court of Appeals: District of Columbia Circuit, https://www.cadc.uscourts.gov/recordings/recordings2018.nsf/74F9B8D7FBD639DB852583D7005D37D7/$file/18-1163.mp3.
189. 467 U.S. 837, 842, 14 ELR 20507 (1984).
190. *Id. See also* Ronald Levin & Jeffrey Lubbers, Administrative Law and Process in a Nutshell 79-88 (6th ed. 2017).
191. *Chevron*, 467 U.S. at 842.
192. *Id.* at 843.
193. *Id.*
194. *Id. See also* Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 441, 19 ELR 21099 (D.C. Cir. 1989).
195. *Chevron*, 467 U.S. at 844.
196. *Ohio*, 880 F.2d at 441. *See also Chevron*, 467 U.S. at 844.
197. 533 U.S. 218 (2001).
198. *Id.* at 226-27. *See also* Skidmore v. Swift & Co., 323 U.S. 134 (1944).
199. Administrative Procedure Act, 5 U.S.C. §706(2)(A).
200. Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43, 13 ELR 20672 (1983) (citing Burlington Truck Lines v. United States, 371 U.S. 156, 168 (1962)).
201. *Id.*
202. *Id.* (citing Securities & Exch. Comm'n v. Chenery Corp., 332 U.S. 194, 196 (1947)).

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However, the scope of review for the "arbitrary and capricious" standard is narrow, and a reviewing court may not "substitute its judgement for that of the agency."[203] Even if the agency's decision is "of less than ideal clarity," the court should defer to its interpretation if the agency's path "may reasonably be discerned."[204] A reviewing court should not ask "whether a regulatory decision is the best one possible or even whether it is better than the alternatives."[205] This deference is especially crucial where the agency's decision concerns "a high level of technical expertise,"[206] and "predictive judgements about areas that are within the agency's field of discretion."[207] Further, when reviewing facial challenges of agency decisions, the reviewing court must consider "the validity of the entire rule in all its applications"; the fact that the rule may be applied arbitrarily in a hypothetical case does not automatically make it arbitrary and capricious.[208]

When an agency replaces a prior policy with a new one, it is not required to provide a more detailed justification than it would when adopting a new policy "on a blank slate."[209] Such heightened justification is only required in situations where, for example, "[the] new policy rests upon factual findings that contradict those which underlay its prior policy, or when its prior policy has engendered serious reliance interests that must be taken into account."[210] The policy change itself does not necessitate this further justification; instead, "a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy."[211]

B. DSW Precedent

For more than 20 years, the D.C. Circuit has litigated a number of cases on the DSW issue. These cases differ from *API III* in two significant ways. First, in all previous DSW cases, the D.C. Circuit applied the two-part *Chevron* test. The *API III* court, however, did not apply the *Chevron* test.[212] Second, in all but one of the previous D.C. Circuit DSW decisions (*AMC I*, the earliest case), the court was more deferential to EPA than in *API III*, especially when reviewing the link between Agency studies and data and the Agency's interpretation of RCRA. It may be useful to review these cases chronologically.

In *AMC I*, the D.C. Circuit found that EPA exceeded its authority "in seeking to bring materials that are not discarded or otherwise disposed of within the compass of 'waste.'"[213] In this case, the court considered a challenge against an earlier rule (Hazardous Waste Management System; Definition of Solid Waste (1985 Rule)) on the DSW issue.[214] Under this rule, any recycled material that met the definition of "solid waste" would be subject to Subtitle C regulation unless it was "directly reused as an ingredient or as an effective substitute for a commercial product," or "returned as a raw material substitute to its original manufacturing process."[215] The 1985 Rule excluded all reclaimed products from these exceptions to Subtitle C regulation.[216] Applying the two-part *Chevron* test,[217] the court determined that Congress unambiguously intended to extend EPA's authority only to materials that are truly "discarded, disposed of, thrown away, or abandoned," and therefore the Agency had erred in extending RCRA to regulate in-process secondary materials.[218]

The court found that it is reasonable for EPA to consider as discarded listed wastes managed in wastewater treatment plants in *American Mining Congress v. Environmental Protection Agency* (*AMC II*).[219] A group of industry petitioners challenged EPA's decision to classify six wastes as "hazardous," arguing that the wastes were not "discarded" because they were "beneficially reused in mineral processing operations," and therefore could not be defined as "solid" and "hazardous" wastes under RCRA.[220] Applying the two-part *Chevron* test, the court found that petitioners had misinterpreted *AMC I*, and that nothing in that case "prevents the agency from treating as 'discarded'. . . wastes . . . which are managed in land disposal units that *are* part of wastewater treatment systems."[221]

In *American Petroleum Institute v. Environmental Protection Agency* (*API I*), the D.C. Circuit found that emission control dust from steelmaking operations is a solid waste, even when sent to a reclamation facility.[222] EPA argued that it lacked the authority to regulate K061 slag under RCRA, because the material was no longer a "solid waste" upon arrival at a metal reclamation facility, because at that point it was no longer "discarded material."[223] Applying the two-part *Chevron* test, the court concluded that EPA erred in its reading of *AMC I*; unlike the discarded materials at issue in that case, the K061 slag qualified as "discarded" for a time before being reclaimed, and was therefore "reasonably considered part of the waste disposal problem."[224]

203. *Id.*
204. *Id.* (quoting Bowman Transp. Inc. v. Arkansas-Best Freight Sys., 419 U.S. 281, 286 (1974)).
205. Federal Energy Regulatory Comm'n v. Electric Power Supply Ass'n, 136 S. Ct. 760, 782, 46 ELR 20021 (2016).
206. Marsh v. Oregon Natural Res. Council, 490 U.S. 360, 377,19 ELR 20749 (1989) (quoting Kleppe v. Sierra Club, 427 U.S. 390, 412, 6 ELR 20532 (1976)).
207. BNSF Ry. Co. v. Surface Transp. Bd., 526 F.3d 770, 781 (D.C. Cir. 2008) (quoting Wisconsin Pub. Power, Inc. v. Federal Energy Regulatory Comm'n, 493 F.3d 239, 260 (D.C. Cir. 2007)).
208. American Hosp. Ass'n v. National Labor Relations Bd., 499 U.S. 1539, 1547 (1991).
209. Federal Commc'ns Comm'n v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009).
210. *Id.* (citing Smiley v. Citibank (S.D.), N.A., 517 U.S. 735, 742 (1996)).
211. *Id.* at 515-16 (citing *Smiley*, 517 U.S. at 742).
212. API III, 862 F.3d 50, 66, 47 ELR 20089 (D.C. Cir. 2017).
213. AMC I, 824 F.2d 1177, 1178, 17 ELR 21064 (D.C. Cir. 1987).
214. *Id.* at 1180 (citing Hazardous Waste Management System; Definition of Solid Waste, 50 Fed. Reg. 614 (Jan. 4, 1985)).
215. *Id.* (citing 50 Fed. Reg. at 618-19, 664).
216. *Id.*
217. Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837, 14 ELR 20507 (1984).
218. *AMC I*, 824 F.2d at 1189 (citing *Chevron*, 467 U.S. 837).
219. 907 F.2d 1179, 20 ELR 21415 (D.C. Cir. 1990) (*AMC II*).
220. *Id.* at 1184 (citing *AMC I*, 824 F.2d at 1179).
221. *Id.* at 1186.
222. 906 F.2d 729, 20 ELR 21091 (D.C. Cir. 1990) (*API I*).
223. *Id.* at 740.
224. *Id.* at 741.

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EPA concluded that materials undergoing "sham recycling" are discarded, and therefore solid wastes subject to Subtitle C, in *American Petroleum Institute v. Environmental Protection Agency* (*API II*).[225] A group of industry petitioners challenged EPA's decision to exclude petrochemical recovered oil from the DSW, provided that certain conditions are met to prevent "sham recycling."[226] Petitioners argued that these materials were not "discarded" under the plain meaning of RCRA.[227] Applying the two-part *Chevron* test, the court found that EPA had not violated *AMC I*'s definition of "discard," because "abandoning a material is discarding even if labeled recycling" and the speculatively accumulated recovered oil at issue in the case was a discarded material.[228]

In *Safe Food*, the D.C. Circuit found that material destined for recycling in another industry is not necessarily "discarded." Environmentalist petitioners took issue with EPA's decision to exempt zinc fertilizers and the recycled material used to make them from Subtitle C regulation, and argued that both the materials and the fertilizers should be classified as "hazardous wastes" under RCRA.[229] The court applied the two-part *Chevron* test and found that, despite its conclusion in *AMC I* that the term "discarded" does not apply to materials destined for beneficial reuse, and its decision in *API I* that materials sent to be recycled in another industry may be considered "discarded," that RCRA does not "compel the conclusion that material destined for recycling in another industry is *necessarily* discarded."[230]

In *Solvay USA Inc. v. Environmental Protection Agency*, the D.C. Circuit upheld a rule that defined when specific non-hazardous secondary materials are solid waste under RCRA when used in combustors.[231] This case differs from other DSW precedent discussed in this Article because the rule at issue regulates non-hazardous, rather than hazardous, secondary materials. However, because the RCRA DSW, and thus the meaning of "discarded material," applies to both hazardous and non-hazardous materials,[232] the D.C. Circuit's decision in *Solvay* is analogous to *API III* and the broader DSW issue.

The *Solvay* court upheld the rule's classification of secondary materials as solid waste unless excluded as entitled to deference under *Chevron*, finding that the Agency's interpretation of RCRA was reasonable and properly balanced the statute's dual aims of recovery and conservation.[233] The court also found that the Agency had reasonably exercised its discretion when it established legitimacy criteria to distinguish non-hazardous secondary materials used as fuel or ingredients from those materials that are solid waste.[234] EPA had the statutory authority to assume that secondary materials transferred to a third party were solid waste until the generator or reclaimer demonstrated otherwise.[235]

IV. Had the *API III* Court Followed Precedent, the 2015 Rule Would Have Withstood Challenge

As the preceding discussion indicates, both the *Chevron* test and "arbitrary and capricious" review under the APA are used to examine agency interpretations of the statutes they are bound to enforce. Although there is some overlap between the two standards, particularly between *Chevron* step two and "arbitrary and capricious" review, the two are not identical.[236] *Chevron* analysis appears to be used most often when examining an agency's interpretation of the language of a statute, while "arbitrary and capricious" review is often used when parties agree on the meaning of a statute but disagree upon its application.

Therefore, it seems most logical to apply the *Chevron* test to EPA's conception of "discarded" underpinning the concept of hazardous constituents "along for the ride," and to apply "arbitrary and capricious" review to EPA's use of scientific evidence. Under both deferential tests, both the "along for the ride" criterion and the verified recycler exclusion should have survived review.

A. *"Along for the Ride" Survives Proper Application of* Chevron

The preliminary "step zero" in the *Chevron* test requires the reviewing court to determine whether the agency has the authority to make binding legal rules. EPA is authorized to promulgate rules under §§2002, 3001, 3002, 3003, 3004, 3007, 3010, and 3017 of RCRA.[237] *Chevron* step one asks whether Congress "has directly spoken to the precise question at issue," requiring the reviewing court to consider legislative history and the underlying purpose and plain language of the statute at issue. The question at issue, which underpins the entirety of the 2015 Rule and especially the "along for the ride" criterion, is the meaning of the term "discarded material"[238] within the RCRA DSW, and whether it may encompass recycled secondary hazardous materials with levels of hazardous constituents above those of recognized analogues or market standards.

The statutory DSW lists some very specific items: "garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility," before listing "discarded material," indicating that Congress meant to give EPA authority over other categories of

225. 216 F.3d 50, 30 ELR 20686 (D.C. Cir. 2000) (*API II*).
226. *Id.* at 58.
227. *Id.*
228. *Id.*
229. Safe Food & Fertilizer v. Environmental Prot. Agency, 350 F.3d 1263, 1265 (D.C. Cir. 2004).
230. *Id.* at 1269 (emphasis added).
231. 608 Fed. Appx. 10, 45 ELR 20107 (D.C. Cir. 2015). *See also* Identification of Non-Hazardous Secondary Materials That Are Solid Waste, 76 Fed. Reg. 15456 (Mar. 21, 2011).
232. 42 U.S.C. §6903(27).
233. *Solvay*, 608 Fed. Appx. at 12-13.
234. *Id.* at 13.
235. *Id.*
236. API II, 216 F.3d 50, 58, 30 ELR 20686 (D.C. Cir. 2000).
237. 42 U.S.C. §§6921, 6922, 6923, 6924.
238. *Id.* §6903(27).

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waste.[239] Further, the "plain meaning" of the statute, as interpreted by the D.C. Circuit in *AMC I*, "reveals clear Congressional intent to extend EPA's authority only to materials that are truly discarded, disposed of, thrown away, or abandoned."[240]

While *AMC I* states that materials that "are destined for *beneficial* reuse or recycling in a continuous process by the generating industry itself" cannot be considered discarded,[241] EPA's position in the 2015 Rule was that the "sham" recycled products addressed in the rule were not beneficially recycled by virtue of their containing hazardous materials not found in their non-recycled analogues. Further, precedent indicates that "sham" recycled products *may* be considered discarded "if they can reasonably be considered part of the waste disposal problem."[242] The arc of the cases interpreting the statutory provision seems to clearly indicate that "sham" recycled products are de facto discarded and, therefore, fall under RCRA Subtitle C.

Ad arguendo, the 2015 Rule's conception of "discarded" also passes *Chevron* step two, which requires the reviewing court to ask whether the agency's interpretation of the statute is reasonable. Preventing "sham" recycled materials from being considered "discarded" is consistent with the statutory purpose of RCRA, which is to manage solid and hazardous waste in order to protect human health and the environment. Because these "sham" recycled products contain higher levels of hazardous constituents than analogues and widely recognized commodity standards, they have the potential to be proportionately more harmful to the environment, making it reasonable for EPA to regulate them more stringently and subject them to Subtitle C.

In *API III*, the D.C. Circuit broke with DSW precedent by adopting a rigid definition of "discard" when invalidating the "along for the ride" criterion, striking down the burden-shifting requirement of the exception to the "comparable or lower than" standard, citing perceived deficiencies in data as grounds for invalidation rather than deferring to EPA, and striking down portions of the rule rather than remanding to the Agency for further explanation.[243]

In *API III*, the D.C. Circuit invalidated the "along for the ride" legitimacy criterion because EPA failed to definitively prove that "sham" recycled products will be discarded rather than beneficially transformed.[244] The *API III* court's decision hinges on the conception of what it means to be "discarded"; while past DSW cases took a more open-ended approach to what materials might be assumed to be discarded,[245] the *API III* court seems to conclude that even products containing high levels of hazardous constituents cannot be considered de facto discarded.[246] In actuality, the "comparable or lower than" standard is entirely consistent with past precedent on what materials are considered "discarded" under RCRA.

Although the *AMC I* court concluded that EPA's regulatory authority only extends to materials that are discarded "by virtue of being disposed of, abandoned, or thrown away,"[247] the decisions in both *AMC II*[248] and *Safe Food*[249] carve out exceptions to this rigid definition. In *AMC II*, the D.C. Circuit agreed with EPA that sludges from wastewater were discarded even though they might be reclaimed at some indeterminate later date, because they posed a risk of harm to human health and the environment.[250] This precedent stands for the legal idea that the definition of "discard" does not hinge on whether recycled secondary materials have *actually* been disposed of, abandoned, or thrown away.[251]

Instead, labeling a material as "discarded" is a much more nuanced consideration, in which waste that is nominally destined for beneficial use is "discarded" if it threatens human health and the environment while in route to that destination.[252] The 2015 Rule's "comparable or lower than" standard for hazardous secondary materials is consistent with this more nuanced conception of "discard," because it relies on the conclusion that the higher levels of hazardous constituents in recycled products pose a threat of harm to human health and the environment, rather than the generator's assertion that the product has been beneficially recycled or transformed.

In *Safe Food*, the D.C. Circuit found that fertilizers derived from recycled feedstocks were not "discarded" because they were "chemically indistinguishable from analogous commercial products made from virgin materials."[253] EPA may properly consider whether a recycled product is chemically similar to an analogous one while determining whether it has been discarded.[254] The "comparable or lower than" standard in the 2015 Rule finds support in this precedent, as EPA determines whether a hazardous secondary material has been de facto discarded by comparing it with either an analogous product or widely recognized commodity standards. The *API III* court failed to properly consider this precedent when invalidating the "along for the ride" criterion and its "comparable or lower than" standard.[255]

Further, as in *API II*,[256] where the court found that additional materials in recycled products that provide "no benefit to the industrial process" indicate that the product

239. *See* AMC I, 824 F.2d 1177, 1190-91, 17 ELR 21064 (D.C. Cir. 1987).
240. *Id.* at 1191.
241. *Id.* at 1186.
242. Safe Food & Fertilizer v. Environmental Prot. Agency, 350 F.3d 1263, 1268 (D.C. Cir. 2004) (citing API I, 906 F.2d 729, 740-41, 20 ELR 21091 (D.C. Cir. 1990); AMC II, 907 F.2d 1179, 1186-87, 20 ELR 21415 (D.C. Cir. 1990)).
243. *See supra* Section II.D.
244. API III, 862 F.3d 50, 58, 47 ELR 20089 (D.C. Cir. 2017).
245. *See supra* Section III.B.
246. *API III*, 862 F.3d at 60.
247. *See supra* notes 214-19 and accompanying text.
248. *See supra* notes 220-22 and accompanying text.
249. *See supra* notes 230-31 and accompanying text.
250. *See supra* notes 220-22 and accompanying text.
251. *See*, *e.g.*, API I, 906 F.2d 729, 740-41, 20 ELR 21091 (D.C. Cir. 1990).
252. *Id.*
253. Safe Food & Fertilizer v. Environmental Prot. Agency, 350 F.3d 1263, 1269 (D.C. Cir. 2004).
254. *See*, *e.g.*, *id.*
255. API III, 862 F.3d 50, 58, 47 ELR 20089 (D.C. Cir. 2017).
256. *See supra* notes 226-29 and accompanying text.

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has been de facto discarded,[257] the "comparable or lower than" standard in the 2015 Rule specifically strikes at "sham" recycled products containing levels of hazardous constituents that would not be found in their non-recycled counterparts. The *API III* court invalidated the "comparable or lower than" standard absent conclusive proof that these hazardous constituents "along for the ride" were actually *harmful*[258]; however, according to *API II*, EPA is not required to demonstrate that these constituents are "harmful," but rather that they are not "beneficial." Allowing recycled products to contain hazardous constituents that might not be present at all in analogues or widely recognized commodity standards could, under precedent, be tantamount to allowing waste generators and reclaimers to cut corners by introducing potentially harmful hazardous constituents in products. Without the "comparable or lower than" standard, these generators and reclaimers are free to claim that their hazardous constituent-laden products have been recycled in order to bypass compliance with RCRA Subtitle C.

When reviewing the "along for the ride" criterion, the court rejected studies cited by the Agency to defend the "comparable or lower than" standard to prevent "sham" recycling because they did not "bear any obvious relation" to the rule.[259] However, these studies did demonstrate that some recycled products that contain high levels of hazardous constituents are often associated with environmental contamination and disasters such as fires.[260] Further, the court focused on hypothetical cases in which recycled secondary hazardous materials with high levels of hazardous constituents *might* not pose an environmental risk. However, in a facial challenge like this one, "the validity of the entire rule in all its applications" should be reviewed, rather than the fact that the rule may be applied arbitrarily to this subset of recycled materials.[261] In fact, even if the "comparable to or lower than" standard may be applied arbitrarily in these hypothetical cases, the exception saves the rule by allowing generators to demonstrate that their recycled products do not pose an environmental risk.

The *API III* court's invalidation of the recordkeeping exception in the "along for the ride" criterion also represents a break with precedent. As in *API II*, where the court required the petroleum refining industry to meet certain conditions in order to exclude petrochemical recovered oil from the DSW,[262] the documentation requirement in the "along for the ride" exception would have affirmatively required generators to prove that their recycled secondary material did not pose a significant environmental risk.[263] The 2015 Rule's placement of this affirmative burden on generators in order to preclude "sham" recycled materials from exclusion to Subtitle C is consistent with *API II* and should not have been invalidated. From a policy standpoint, the *API III* court's labeling of these recordkeeping requirements as "draconian"[264] is almost laughable; completing tests and preparing documentation to demonstrate that a secondary hazardous material qualifies for this exception is no more onerous than the permitting, compliance, and environmental review practices associated with RCRA and a host of other environmental statutes.

Finally, the D.C. Circuit's decision in *API III* directly contradicts its earlier decision in *Solvay*, where the court upheld certain provisions of a DSW rule with significant similarities to the provisions of the 2015 Rule struck down in *API III*.[265] Though the rule at issue in *Solvay* governs non-hazardous secondary materials while the 2015 Rule regulates hazardous secondary materials, the two rules contain nearly identical provisions to the "along for the ride" legitimacy criterion and the verified recycler exclusion, as EPA argued in its final brief for *API III*.[266] The "along for the ride" criterion provides that "the product of the recycling process must be comparable to a legitimate product or intermediate,"[267] while the rule examined in *Solvay* mandates that "non-hazardous secondary materials must contain contaminants . . . at levels comparable in concentration to or lower than those in traditional fuel."[268] The D.C. Circuit upheld this legitimacy criterion in *Solvay*, deferring to the Agency's "reasonable exercise [of] discretion" and "determinations based on technical matters within its area of expertise,"[269] but struck down the similar "along for the ride" criterion in *API III* as unsupported by scientific evidence.[270]

B. *The Verified Recycler Exclusion Should Survive Proper "Arbitrary and Capricious" Review*

"Arbitrary and capricious" review requires the reviewing court to analyze agency decisions to determine if there is a "rational connection between the facts and the choice made."[271] Under this highly deferential standard, both the "along for the ride" legitimacy criterion and the verified recycler exclusion should survive judicial review. The court's "arbitrary and capricious" analysis is flawed in that it seems to require heightened justification for the more stringent requirements of the 2015 Rule, an approach that is rejected in *Federal Communications Commission v. Fox Television Stations, Inc.*[272] EPA scientists and policymakers have a much higher level of expertise than the judges on

257. API II, 216 F.3d 50, 58-59, 30 ELR 20686 (D.C. Cir. 2000).
258. *API III*, 862 F.3d at 60.
259. *Id.* at 62.
260. *Id.*
261. American Hosp. Ass'n v. National Labor Relations Bd., 499 U.S. 1539, 1547 (1991).
262. *API II*, 216 F.3d at 58-59.
263. 40 C.F.R. §260.43(a)(4).
264. *API III*, 862 F.3d at 61.
265. *See* Solvay USA Inc. v. Environmental Prot. Agency, 608 Fed. Appx. 10, 12, 45 ELR 20107 (D.C. Cir. 2015).
266. *See* Final Brief for Respondents, American Petroleum Inst. v. Environmental Prot. Agency, 862 F.3d 50 (D.C. Cir. 2017) (No. 09-1038), 2016 WL 3402605, at 21.
267. 40 C.F.R. §260.43(a)(4).
268. *Id.* §241.3(d)(1)(iii).
269. *Solvay*, 608 Fed. Appx. at 12.
270. API III, 862 F.3d 50, 62, 47 ELR 20089 (D.C. Cir. 2017).
271. *See supra* Section III.A.2.
272. 556 U.S. 502, 515 (2009).

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the D.C. Circuit, so the court should have deferred to their technical judgment.

The D.C. Circuit rejected EPA studies demonstrating greater incidence of environmental damages associated with "off-site" recycling because it focused "only on recycling gone wrong."[273] The court would seemingly prefer a study including examination of both successful and unsuccessful cases. However, since 94% of environmental disasters occur at "off-site" recycling facilities,[274] it is not at all arbitrary to require these facilities to obtain a RCRA permit or variance. The D.C. Circuit also rejected a study demonstrating "perverse incentives . . . to over-accumulate [ ] hazardous secondary materials" rather than recycling them, because the study is based on a theoretical analysis of the market.[275] However, "economic models" may be used as justification for agency action "provided there is a conscientious effort to take into account what is known as to past experience and what is reasonably predictable about the future."[276]

The D.C. Circuit's examination of the scientific evidence cited by EPA in the 2015 Rule represents a departure from the more deferential review it gave to scientific studies considered in past DSW decisions. As a preliminary matter, the reviewing courts deferred to EPA's technical judgment in four of the five past DSW cases discussed here. The *API III* court's decision to scrutinize the Agency's approach in this instance seems inconsistent with those decisions.[277]

Though EPA cited several studies demonstrating the harm resulting from "sham" recycling and the greater incidence of risk of environmental harm resulting from off-site recycling, the *API III* court pointed to perceived gaps in data as reasons to invalidate the 2015 Rule.[278] However, despite deficiencies in data in past DSW cases, the D.C. Circuit still deferred to EPA in those earlier cases.[279] The *AMC II* court rejected a challenge objecting to EPA's failure to consider post-1984 studies,[280] while the *API I* court found that EPA's decision not to perform comparative risk analysis was not arbitrary and capricious, because the Agency explained that it was "relatively useless."[281]

While the *API III* court struck down provisions of the 2015 Rule because it found deficiencies in the Agency's data, past courts reviewing DSW issues often remanded data gaps to the Agency for further consideration rather than invalidating regulations.[282] In *AMC II*, the court found that EPA's listing of five wastes as "discarded" were not adequately supported by data, and, therefore, the rulemaking was "arbitrary and capricious."[283] However, rather than striking down the listing, the *AMC II* court remanded consideration of these five materials to the Agency for further explanation of its decision.[284] Similarly, in *Safe Food*, the court determined that EPA had not provided adequate support for its decision to exempt certain fertilizers from Subtitle C, and remanded to EPA for further explanation.[285] Had the *API III* court remanded to EPA rather than striking down the portions of the rule it judged unsupported, EPA could possibly have rehabilitated the 2015 Rule through further scientific studies or clearer explanation of its thinking.

Further, the rule at issue in *Solvay* distinguished between secondary materials "within the control of the generator" and materials transferred to third-party reclaimers,[286] much like the verified recycler exclusion, which requires waste generators to send their hazardous secondary materials to reclaimers with RCRA permits or variances.[287] Although both rules presume that materials transferred to third-party reclaimers are "solid waste," and place the burden upon the regulated entity to demonstrate that their waste should not be subject to Subtitle C, the D.C. Circuit upheld the rule in *Solvay*, finding it "consistent with RCRA and reasonable," but struck down the verified recycler exclusion in *API III* as unsupported by scientific data.[288] The *Solvay* court's deference to provisions mirroring the "along for the ride" criterion and the verified recycler exclusion is inconsistent with the *API III* court's comparatively harsh review of the 2015 Rule.

V. Predictions and Observations on the Future of DSW

A. *The DSW Issue Depends on the Political Party Controlling the White House*

Both the history and the future of the DSW issue are irrevocably tied to the political leanings of the presidential administration that governs the actions of EPA. The three DSW rules discussed in this Article follow this pattern. The 2008 Rule, promulgated by a conservative Bush-era EPA mere months before a change in administration, was initiated by an October 2003 proposal to revise the DSW to exempt material generated and reclaimed in a continuous process within the same industry from the provisions

273. *API III*, 862 F.3d at 70.
274. *Id.* (citing U.S. EPA, A Study of Potential Effects of Market Forces on the Management of Hazardous Secondary Materials Intended for Recycling 3 (2006) (EPA-HQ-RCRA-2002-0031-0358)).
275. *Id.* at 68 (citing 80 Fed. Reg. at 1708).
276. American Pub. Gas Ass'n v. Federal Power Comm'n, 567 F.2d 1016, 1037 (D.C. Cir. 1977).
277. Safe Food & Fertilizer v. Environmental Prot. Agency, 350 F.3d 1263 (D.C. Cir. 2004), discussed *supra* notes 230-31; API II, 216 F.3d 50, 30 ELR 20686 (D.C. Cir. 2000), discussed *supra* notes 226-29; API I, 906 F.2d 729, 20 ELR 21091 (D.C. Cir. 1990), discussed *supra* notes 223-25; AMC II, 907 F.2d 1179, 20 ELR 21415 (D.C. Cir. 1990), discussed *supra* notes 220-22.
278. *API III*, 862 F.3d at 61.
279. *See*, *e.g.*, *AMC II*, 907 F.2d 1179; *API I*, 906 F.2d at 738.
280. *AMC II*, 907 F.2d 1179.
281. *API I*, 906 F.2d 729.
282. *See*, *e.g.*, *Safe Food*, 350 F.3d at 1272; *AMC II*, 907 F.2d at 1191.
283. *See supra* notes 220-22 and accompanying text.
284. *AMC II*, 907 F.2d at 1192.
285. *Safe Food*, 350 F.3d 1263.
286. Solvay USA Inc. v. Environmental Prot. Agency, 608 Fed. Appx. 10, 12, 45 ELR 20107 (D.C. Cir. 2015).
287. 40 C.F.R. §261.4(a)(24).
288. API III, 862 F.3d 50, 68, 47 ELR 20089 (D.C. Cir. 2017).

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of Subtitle C.[289] The Obama-era EPA agreed to revise the DSW rule to comply with the Sierra Club's challenges in 2010 before eventually promulgating the 2015 Rule.[290] The Trump-era EPA, albeit aided by a skeptical D.C. Circuit, quickly reverted back to a DSW program that favors regulators in promulgating the 2018 Rule, which reinstates many of the provisions of the 2008 Rule.[291] Any discussion of the future of the DSW controversy must fully consider the degree to which the issue is bound up with the political leanings of the administration that controls the White House.

B. Potential Solutions and Their Shortcomings

The 2018 Rule, which retains the vast majority of the 2008 Rule's provisions, has already led to inevitable legal challenges by environmental groups and, as the Agency noted in the preamble to the 2015 Rule, may pose major potential consequences for human health and the environment, particularly for minority and low-income communities.[292] One potential solution to the controversy surrounding DSW is for EPA to complete scientific research that the D.C. Circuit will accept and reinstate the 2015 Rule. Another potential solution to the DSW issue is for the Agency to craft a new rule that takes the *API III* court's objections into account but still addresses "sham" recycling and the risks associated with "off-site" recycling. Such a rule might result from the legal challenge brought in *California Communities Against Toxics v. Environmental Protection Agency*, which calls for EPA to withdraw the transfer-based exclusion and initiate new DSW rulemaking.[293]

However, both of these potential solutions are inconsistent with the current political climate. The present Administration has shown no inclination toward curing the administrative record—to the extent it needs to be "cured"[294]—to provide support for the "along for the ride" criterion and the verified recycler exclusion. If the Administration did, then its response to the invalidation of the 2015 Rule would not have been de facto reinstatement of the 2008 Rule.[295] The notion of crafting a rule halfway between the 2008 and 2015 Rules to respond to the *API III* court's objections would likely result in challenges from both environmental groups and the regulated community, and would involve a good deal of regulatory inefficiency. Because the 2015 Rule was arguably intended to more closely adhere to the underlying purpose of RCRA,[296] to "promote the protection of health and the environment,"[297] environmentalists argue that it would be contradictory for the Agency to retreat from the regulatory oversight of the rule in an attempt to appease the regulated community.

C. "Hard Look" Review and the Future of Earthjustice's Challenge

In *API III*, the D.C. Circuit broke with DSW precedent and took a "hard look" at the Agency's justifications for the verified recycler exclusion and the "along for the ride" criterion when applying the "arbitrary and capricious" standard.[298] Although "arbitrary and capricious" review is narrow, and requires a reviewing court to defer to agency expertise, particularly in areas where the agency has superior technical capabilities,[299] the D.C. Circuit applied an unprecedented degree of scrutiny to the 2015 Rule in its critical look at the EPA studies supporting the verified recycler exclusion and the "along for the ride" criterion.[300] The D.C. Circuit's approach in *API III*, therefore, reflects a preference for taking an especially "hard look" at EPA decisions, even in areas where the Agency was previously given considerable deference.

If the D.C. Circuit takes a similar "hard look" approach when reviewing the latest DSW challenge in *California Communities Against Toxics*, the 2018 Rule will meet the same fate as the 2015 Rule. In that challenge, environmental petitioners argue that the reinstated transfer-based exclusion should be reviewed because the 2018 Rule fails to account for EPA's prior findings that the exclusion is "legally defective and dangerous," and because the Agency has never found that refinery spent catalysts can be safely managed under the exclusion.[301] The reinstated transfer-based exclusion cannot survive under the rigorous, nondeferential rule applied in *API III*.

In *API III*, the D.C. Circuit vacated the verified recycler exclusion because its removal of the "reasonable efforts" provision of the transfer-based exclusion was unreasonable, despite several studies theorizing that third-party recycling poses an increased risk of discard; according to the court, these studies "fail[ed] to provide sufficient linkage between theory, reality, and the result reached."[302] The petitioners in *California Communities Against Toxics* challenge the transfer-based exclusion for nearly identical reasons: because the Agency has completely failed to demonstrate, by scientific data or otherwise, that the exclusion can be protective of human health and the environment while exempting refinery spent catalysts.[303] If the D.C. Circuit takes a similarly "hard look" at the 2018 Rule, the lack of agency data to support the transfer-based exclusion will certainly be called into question.

289. 73 Fed. Reg. at 64672.
290. 80 Fed. Reg. at 1701.
291. Response to Vacatur of Certain Provisions of the Definition of Solid Waste Rule, 83 Fed. Reg. 24664 (May 30, 2018).
292. 80 Fed. Reg. at 1702.
293. Earthjustice Petition, *supra* note 185.
294. *See supra* Sections IV.A. and IV.B.
295. *See supra* notes 179-82 and accompanying text.
296. 80 Fed. Reg. at 1702.
297. 42 U.S.C. §6902(a).
298. *See supra* Section II.D.
299. *See supra* Section III.A.2.
300. *See supra* Part IV.
301. Earthjustice Petition, *supra* note 185.
302. API III, 862 F.3d 50, 68, 47 ELR 20089 (D.C. Cir. 2017) (citing Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43, 13 ELR 20672 (1983)).
303. Earthjustice Petition, *supra* note 185.

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Further, because the D.C. Circuit invalidated the verified recycler exclusion based on a lack of data to support the presumption that third-party reclamation is associated with a great risk of "discard,"[304] application of the same "hard look" review to the reinstated transfer-based exclusion must logically also result in its invalidation. Both the transfer-based exclusion and the verified recycler exclusion rest upon the same presumption: that hazardous secondary materials transferred to third-party reclaimers are automatically discarded unless proven otherwise. The verified recycler exclusion presumes that third-party reclamation leads to discard unless the reclaimer has a RCRA variance.[305] The transfer-based exclusion also presumes "discard" based on the location of the recycling, but differs from the verified recycler exclusion in that the burden of proving otherwise is placed on the generator to perform an audit of the third-party reclaimer.[306] Therefore, if the D.C. Circuit continues its non-deferential review of the 2018 Rule in *California Communities Against Toxics*, it logically should invalidate the transfer-based exclusion, as it requires evidence of a correlation between third-party reclamation and "discard."

By adopting such a strict and non-deferential standard of review in *API III*, the D.C. Circuit has involved itself in determinations previously left to the technical expertise of administrative agencies. If the D.C. Circuit chooses to take a "hard look" at both the DSW issue and other agency actions, the court will establish a new precedent of "rulemaking from the bench," weighing in on issues once left to a different branch of government entirely.

VI. Conclusion

The jurisprudential history of the DSW issue is fraught with complexity and indecision, and the intricacies surrounding this legal issue were once again debated by the D.C. Circuit in *API III*. Despite deferring to EPA's regulatory authority and technical expertise in several past DSW cases, the *API III* court ultimately decided that the Agency's intent to eliminate "sham" recycling cannot sweep hazardous secondary materials beneficially recycled into valuable products into its strict regulatory framework. The court's decision fails to properly consider past DSW precedent, and rests upon a misapplication of the two-part *Chevron* test and "arbitrary and capricious" review.

For now, EPA has chosen, in its 2018 Rule, to essentially reinstate the 2008 Rule. The reinstatement has drawn a predictable challenge by those who believe that de facto reinstatement of the 2008 Rule revives the environmental justice concerns they had about the 2008 Rule. To allay these concerns, EPA could take steps toward resolving the DSW issue by completing new scientific research to cure the administrative record and provide support for the "along for the ride" criterion and the verified recycler exclusion. However, the present Administration clearly has no interest in this potential solution. Instead, given the D.C. Circuit's new precedent of taking an exceptionally "hard look" at DSW, the likely future of the DSW issue is further regulatory confusion, because the newly reinstated transfer-based exclusion is unsubstantiated by crucial agency data and therefore may not survive such stringent review.

It is hard to imagine a lasting solution to the DSW conundrum. As the history of past DSW rules and D.C. Circuit jurisprudence reflects, the DSW issue swings between regulatory oversight, on one hand, and industry self-regulation, on the other, depending on the political leanings of the Administration. Perhaps, the only real solution to the issue, for those who desire a more protective DSW rule, is to wait for the pendulum to swing back again.

304. *API III*, 862 F.3d at 75.
305. *Id.*
306. 40 C.F.R. §261.4(a)(24).