Periodic Reviews for the Renewable Fuel Standard Program

EPA United States Environmental Protection Agency

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Assessment and Standards Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

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Under Section 211(o)(11) of the Clean Air Act, EPA is required to conduct certain periodic reviews. The paragraph provides that:

> To allow for the appropriate adjustment of the requirements described in subparagraph (B) of paragraph (2), the Administrator shall conduct periodic reviews of—
> (A) existing technologies;
> (B) the feasibility of achieving compliance with the requirements; and
> (C) the impacts of the requirements described in subsection (a)(2) on each individual and entity described in paragraph (2).

This document explains our interpretation of this paragraph and describes how we have fulfilled it. Section I explains our interpretation of the statutory text, including both ambiguities and unintelligible aspects of Subparagraph (C). Section II describes our fulfillment of the obligation to conduct periodic reviews notwithstanding the interpretive issues, and the contexts in which we have used the results of those periodic reviews.

I. Legal Interpretation of CAA 211(o)(11)

A. Introductory Text

The language in the introductory text of 211(o)(11) is ambiguous in many respects, and provides EPA significant discretion to determine how and when the periodic reviews will be conducted and made available to the public. For one, the statute does not provide direction on the extent of the required reviews (e.g. qualitative versus quantitative), or the format in which periodic reviews must be publicized (e.g. standalone reports versus assessments done in the context of other actions, such as setting annual RFS standards or responding to petitions for rulemaking). The statute merely directs EPA to conduct "reviews," a broad and open-ended activity which requires the exercise of agency judgment. *See review*, BLACK'S LAW DICTIONARY 1514 (10th ed. 2014) (defining "review" as "[c]onsideration, inspection, or reexamination of a subject or thing"). Further, it is reasonable to interpret the scope of the review in light of the scope of EPA's actions in making "appropriate adjustment" of the relevant RFS requirements, where the word "appropriate" further highlights the significant discretion conferred upon EPA. *See Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (explaining that "'appropriate' is the classic broad and all-encompassing term" and "leaves agencies with flexibility").

In addition, the statute does not require the issuance of any specific and discrete agency document or action, or for EPA to identify at the time it takes actions that is satisfying the

periodic review provision. It does not require EPA to issue this document. [1] It suffices that EPA has, on a periodic basis, taken actions with the effect of complying with the provision. *See Murray Energy Corp. v. EPA*, 861 F.3d 529, 533 n.1 (4th Cir. 2017) (explaining that EPA's actions could satisfy CAA section 321 even though they were not prepared with the intent of doing so).

The statute also does not specify the precise timing or frequency with which EPA must complete the reviews. It sets neither a deadline for the first review, nor time intervals at which that review must be updated or subsequent reviews completed. Rather, the statute only directs EPA to conduct "periodic reviews" to "allow for the appropriate adjustment" of the requirements in Section 211(o)(2)(B), indicating that such reviews should occur more than once and facilitate the "appropriate adjustment" of the relevant requirements.

In addition, the phrase "appropriate adjustment" does not indicate which statutory adjustment provision it is referring to. There are three provisions in Section 211(o) that authorize the agency to "adjust" some aspect of the RFS program:

- Section 211(o)(3)(C) - Adjustments to percentage standards
- Section 211(o)(4) - Adjustments to greenhouse gas reduction percentages
- Section 211(o)(7)(D)(ii) - Adjustments to cellulosic waiver credit prices for inflation

None of these provisions authorize EPA to adjust the renewable fuel applicable volumes specified in Section 211(o)(2)(B).

On the other hand, the statute, without explicitly using the words "adjust" or "adjustment," does authorize EPA to use its authorities in Section 211(o)(7)(A)-(E) to waive the applicable volumes in Section 211(o)(2)(B) in appropriate circumstances, and to set and reset the statutory volume targets in Section 211(o)(2)(B) in the circumstances described in Section 211(o)(2)(B)(ii) and Section 211(o)(7)(F) respectively.[2] EPA thus interprets the phrase "appropriate adjustment" to refer to the waiver and reset and set authorities described in 211(o)(7) and 211(o)(2)(B)(ii). We have not to date adjusted any of the statutory volume targets under the reset provisions of (o)(7)(F). However, we have used both the set and waiver provisions to establish standards:

1. We have set the biomass-based diesel volume under 211(o)(2)(B)(ii) for 2013 and all subsequent years.

[1] Unlike our annual standards and certain other RFS regulatory actions that do establish legal requirements for regulated parties, neither our interpretation of the statute nor the description of our studies in this document require any party or the agency to do (or not do) anything beyond what the statute requires. The underlying studies themselves also do not impose any such requirements. In addition, our reviews of the RFS program occur on a continuing basis, and are subject to change in both approach and results. Indeed, we regularly consider new approaches and update our RFS technical analysis, and we intend to continue doing so. For instance, as described below, in deciding whether or not to exercise our waiver authorities in RFS annual standards rules, EPA reviews relevant aspects of the program based on updated data and new technical methods as appropriate.

[2] We also note that Section 211(o)(8) allowed EPA to waive statutory volume targets in calendar year 2006, but not in any later year.

2. We have used the cellulosic waiver authority to reduce the applicable volume for cellulosic biofuel for every year since 2010, and to reduce the applicable volumes for advanced biofuel and total renewable fuel for every year since 2014.
3. We have used the general waiver authority, on the basis of a finding of inadequate domestic supply, to provide a further reduction in the total renewable fuel applicable volume, beyond that obtained through use of the cellulosic waiver authority, in 2016.[3]

We have also considered, but denied, a number of petitions since 2007 that have requested that we exercise the general waiver authority to address alleged severe economic harm or alleged inadequate domestic supply of cellulosic biofuel. As described in more detail below, we have conducted the periodic reviews required by 211(o)(11) in the context of the above decisions, as well as in other contexts, and the results of the periodic reviews have informed these decisions.[4]

B. Subparagraph (C)

Subparagraph (C) presents particular interpretive issues due to a cross-reference to a paragraph that does not exist. As a result, we conclude that Subparagraph (C) is unintelligible and inoperative. But if we assume this provision is operative, we would construe it as directing EPA to review the impacts of the RFS volume requirements on refineries, blenders, distributors, and importers; as well as on consumers of transportation fuel.

1. Unintelligible and Inoperative

Subparagraph (C) directs EPA to consider "the impacts of the requirements described in subsection (a)(2) of this section on each individual and entity described in paragraph (2)." However, "subsection (a)(2)," which naturally refers to Section 211(a)(2), does not exist, nor did it exist at the time when EISA was passed.[5] It is impossible for EPA to review the impacts of the requirements described in a nonexistent provision. The reference to "subsection (a)(2) of this section" is thus unintelligible, and an "unintelligible text is inoperative." ANTONIN SCALIA &

[3] We note that on July 28, 2017, the U.S. Court of Appeals ruled that EPA's consideration of demand-side factors under the inadequate domestic supply prong of the general waiver authority was improper, and remanded the rule back to EPA for further consideration. *See Americans for Clean Energy v. EPA,* 864 F.3d 691 (D.C. Cir. 2017). EPA will respond to that remand in a separate action.

[4] *See, e.g.*, ''A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects,'' Dallas Burkholder, Office of Transportation and Air Quality, US EPA. May 14, 2015, EPA Air Docket EPA–HQ–OAR–2015–0111; *see also* "Denial of Petitions for Rulemaking to Change the RFS Point of Obligation," available in docket EPA-HQ-OAR-2016-0544.

[5] Section 211(a), which does exist and authorizes the Administrator to regulate the sale of fuels or fuel additives, is neither part of the RFS program and nor part of either public law that enacted the RFS. A review of the impacts of the Administrator's Section 211(a) authority to regulate fuel or fuel additives would not appear to facilitate the "appropriate adjustment" of the RFS volume requirements or to otherwise further the goal of the RFS program. It therefore is improbable that Congress mistakenly intended to refer to subsection (a). For this and other reasons described below, EPA declines to rewrite the statutory reference to "subsection (a)(2)" to refer to "subsection (a)."

BRYAN A. GARNER, READING LAW: THE INTERPRETATION OF LEGAL TEXTS 134 (2012);[6] *accord EPA v. EME Homer City Generation*, L.P., 134 S. Ct. 1584, 1613 (2014) (Scalia, J., dissenting) ("There are sometimes statutes which no rule or canon of interpretation can make effective or applicable to the situations of fact which they purport to govern. In such cases the statute must simply fail." (citing 3 R. POUND, JURISPRUDENCE 493 (1959))).[7]

EPA recognizes that in some cases agencies may avoid the literal construction of a statute by applying the scrivener's error doctrine to rewrite an erroneous cross-reference. To do so, however, requires "an extraordinarily convincing justification," such as where the "cross-reference[] as written point[s] in one direction, all the other evidence from the statute points the other way." *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1041 (D.C. Cir. 2001). Here, there is no such extraordinarily convincing justification. Construing the text literally does not undermine any other statutory provision because no other provision references this text. *Cf. id.* at 1041-43 (applying the scrivener's error doctrine because the literal meaning "makes no sense of" two other statutory sections). Nor does a literal construction enact a fundamental revision to a statutory program that "is impossible to accept." *Id.* at 1042. Indeed, while Section 211(o)(11)(C) describes periodic reviews that may inform the adjustment of the statutory applicable volumes, completing the periodic review is not a legal precedent to the exercise of EPA's authorities to adjust the volumes. *See, e.g.*, Section 211(o)(7), (o)(2)(B)(ii). There is also no obviously correct rewriting of "subsection (a)(2)"; even assuming that it refers to some statutory requirement of the RFS program, there are numerous such requirements for which EPA could sensibly analyze the impacts.[8] In sum, there is no "overwhelming evidence from the structure, language, and subject matter" of the statute pointing in a single direction warranting application of the scrivener's error doctrine. *United States Nat'l Bank v. Indep. Ins. Agents of Am.*, 508 U.S. 439, 462 (1993).

The legislative history does not compel a different result. As a general matter, while legislative history may help resolve statutory ambiguities, the history cannot rewrite an unambiguous statutory provision. *See Exxon Mobil Corp. v. Allapattah Servs., Inc.*, 545 U.S. 546, 568 (2005). EPA is unaware of any recent federal case applying the scrivener's error doctrine based solely on legislative history. *Cf. Shannon v. United States*, 512 U.S. 573, 584 (1994) ("courts have no authority to enforce [a] principle gleaned solely from legislative history that has no statutory reference point").

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[6] This treatise on statutory interpretation is a persuasive authority in the courts. *See, e.g.*, *Tex. Dep't of Hous. & Cmty. Affairs v. Inclusive Cmtys. Project, Inc.*, 135 S. Ct. 2507, 2539 (2015) (citing the treatise); *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 61 (D.C. Cir. 2014) (same).

[7] *See also United States v. Matchett*, 837 F.3d 1118, 1128 (11th Cir. 2016) (Pryor, J., statement respecting denial of rehearing en banc); *Awa v. Guam Mem'l Hosp. Auth.*, 726 F.2d 594, 598 (9th Cir. 1984); *State ex rel. Brnovich v. City of Tucson*, 399 P.3d 663, 685-86 (Ariz. 2017) (Gould J., concurring in part and in the result) (collecting numerous state law authorities). This result also follows from the canon that when statutory language is unintelligible without reference to a repealed act, the language is inoperative. *See* 1A SUTHERLAND STATUTORY CONSTRUCTION § 22:3 n.6 (7th ed.) (collecting authorities). Here, the language is *a fortiori* inoperative because it is unintelligible without reference to a nonexistent provision.

[8] EPA could, for instance, analyze the impacts of the statutory volume targets, Section 211(o)(2)(B)(i), the percentage requirements, Section 211(o)(3)(B), the point of obligation, Section 211(o)(3)(B)(ii)(I), the credit program, Section 211(o)(5), the limitations imposed by the definition of renewable biomass, Section 211(o)(1)(I), and so forth.

But even assuming that in the abstract, unambiguous legislative history could rescue otherwise unintelligible statutory text, the history here does not avail. While committee reports are especially valuable, *see Zuber v. Allen*, 396 U.S. 168, 186 (1969), EPA is unaware of any committee report language directly addressing this issue. Indeed, the sole relevant legislative history EPA is aware of is language in an earlier version of the bill that eventually resulted in Section 211(o)(11)(C). In that bill, the relevant language (that now refers to "subsection (a)(2)") referred to earlier versions of the RFS volume requirements. See H.R. 6, 110th Cong. 29 (as passed by the Senate, June 21, 2007) ("Public Print").[9]

Arguably, this suggests that we rewrite the "subsection (a)(2)" reference to instead refer to the RFS volume requirements. But that suggestion is ultimately unacceptable for at least two independent reasons. First, the applicable volumes contained in those earlier versions are significantly different from those contained in the version that became law (what is now codified at CAA section 211(o)(2)(B)). For instance, comparing the Public Print and the law as passed, Congress specified applicable volumes for different years and different types of fuel, with different numerical values for the same years, and different considerations for EPA to assess in resetting the volume requirements.[10] Thus, were EPA to faithfully implement the text of the earlier bill, for purposes of the periodic review, the agency would then analyze the impacts of provisions that did not pass and that are significantly different from the provisions that passed into law. We do not believe that this would be consistent with Congressional intent as embodied in the enacted bill.

Second, rewriting Section 211(o)(11) to refer to the statutory volume target tables that did pass would likewise be inappropriate. It would require the agency to rewrite an existing law by splicing in one piece of the earlier, failed bill into the bill that ultimately became EISA, based solely on the language of that failed bill and no other statutory evidence. EPA declines to take such a radical step. The agency generally does not rely on failed bills to divine the meaning of enacted legislation, much less to rewrite enacted legislation. *See Caraco Pharmaceutical Laboratories, Ltd. v. Novo Nordisk A/S*, 132 S.Ct. 1670, 1686 (2012). EPA's obligation — and the obligation of reviewing courts — is to apply the text of the statute as it is written, not to rescue the Congress from its drafting errors. *Lamie v. U.S. Tr.*, 540 U.S. 526, 542 (2004).

For these reasons, EPA construes the statutory reference to "subsection (a)(2)" literally as written, and therefore finds Section 211(o)(11)(C) unintelligible and inoperative.

2. Impacts of the RFS Volume Requirements on Refineries, Blenders, Distributors, and Importers; as well as on Consumers of Transportation Fuel

As noted above, the cross-reference to paragraph (a)(2) does not exist. Notwithstanding this textual difficulty, EPA recognizes the canon of construction that presumes giving effect to every statutory provision. *See, e.g.*, *Bennett v. Spear*, 520 U.S. 154, 173 (1997) ("It is the

[9] Later versions of the bill, like the final law, refer to a nonexistent provision. *See* H.R. 6, 110th Cong. 29 (as passed by the House, Dec. 6, 2007); *id.* (as passed by the Senate, Dec. 13, 2007).
[10] *Compare* Public Print 14-15, *with* Section 211(o)(2)(B)(i)-(iv).

cardinal principle of statutory construction that it is our duty to give effect, if possible, to every clause and word of a statute….”). On balance, EPA believes that this canon is outweighed by the other canons described above, so that the plain meaning of Section 211(o)(11)(C) is a nullity. *See Chickasaw Nation v. United States*, 534 U.S. 84, 94 (2001) (individual “canons are not mandatory rules” but rather “are guides that need not be conclusive”). Nonetheless, should our legal premise be faulty, we also consider what meaning we would give to Section 211(o)(11)(C) were it operative. *Cf. United States v. Ross*, 848 F.3d 1129, 1134 (D.C. Cir. 2017) (“Where a statute grants an agency discretion but the agency erroneously believes it is bound to a specific decision, we can't uphold the result as an exercise of the discretion that the agency disavows. (citing *Prill v. NLRB*, 755 F.2d 941, 947-48 (D.C. Cir. 1985))).

Thus, assuming that this provision is operative, EPA would construe Subparagraph (C) as directing EPA to review the impacts of the RFS volume requirements on refineries, blenders, distributors, and importers; as well as on consumers of transportation fuel. That is, we would construe “the requirements described in subsection (a)(2)” as referring to the volume requirements in CAA 211(o)(2)(B). And we would construe “each individual and entity described in paragraph (2)” to mean “refineries, blenders, distributors, and importers,” CAA 211(o)(2)(A)(iii)(I), and consumers of transportation fuel, CAA 211(o)(2)(B)(ii)(V); *cf. also* CAA 211(o)(2)(A)(iv).

We begin with our construction of “the requirements described in subsection (a)(2).” Assuming for purposes of this construction only that the cross-reference is operative, the unintelligible statutory text still does not and cannot plainly address *which* requirements EPA is supposed to assess. This ambiguity allows EPA to adopt any reasonable construction. We reasonably construe it to refer to the volume requirements in CAA 211(o)(2)(B). Our reading is supported by the context and structure of the statute. The context indicates that the purpose of the periodic review is “[t]o allow for the appropriate adjustment of the requirements described in subparagraph (B) of paragraph (2),” that is the volume requirements described in CAA 211(o)(2)(B). To allow for the appropriate adjustment of the volume requirements, it is obviously reasonable to assess the impacts of those same requirements. For similar reasons, this reading is also reasonable in light of the overall statutory structure. Congress gave EPA authority to waive and reset the statutory volume targets, as well as to set the applicable volumes in years for which the statute the statute only specifies a minimum volume (for biomass-based diesel, BBD) or does not specify any volume at all . See CAA 211(o)(7), (o)(2)(B)(ii). To inform the exercise of these authorities in deciding whether and to what extent to adjust the statutory volumes, it is reasonable to consider the impacts of the same volumes.

These reasons suffice to warrant our reading of Subparagraph (C) of paragraph 211(o)(11). In addition, we note that our reading is consistent with the legislative history described above — indicating that in a prior version of the bill that became EISA, this cross-reference referred to the statutory volume targets included in that bill.

We now construe the reference to “each individual and entity described in paragraph (2).” We begin by defining “individual” and “entity.” “Individual” ordinarily refers to natural persons. *See Mohamad v. Palestinian Auth.*, 566 U.S. 449 (2012). “Entity” typically “refers to an organization, rather than an individual” natural person, *Samantar v. Yousuf*, 560 U.S. 305, 315

(2010), and includes corporations, companies, associations, firms, partnerships, societies, joint stock companies, and so forth. *See Mohamad,* 566 U.S. at 454-55. Taken together, these readings give different meaning to the two different terms ("individual" and "entity"). *See Loughrin v. United States*, 134 S.Ct. 2384, 2390 (2014) (noting that every word of the statute should, where possible, be given some operative effect). They are also well supported by the larger context of how these terms are used throughout the EISA bill,[11] and the larger U.S. Code. *See Mohamad*, 566 U.S. at 454-55.

The cross-reference to "paragraph (2)" naturally refers to Section 211(o)(2).[12] This section includes a list of regulated individuals and entities ("refineries, blenders, distributors, and importers," CAA 211(o)(2)(A)(iii)(I)) as well as consumers of transportation fuel, CAA 211(o)(2)(B)(ii)(V); *cf. also* CAA 211(o)(2)(A)(iv). EPA construes the statute to refer to these individuals and entities. Assessment of the impacts of the RFS volume requirements on refineries, blenders, distributors, and importers, as well as on consumers of transportation fuel, may reasonably inform the "appropriate adjustment" of the volume requirements.

We note that CAA 211(o)(2) includes stray references to other individuals or entities as well. Nevertheless, we believe it is implausible that Congress intended EPA to review the impact of the RFS on every single individual or entity which happens to be described somewhere in this portion of the U.S. Code. Beyond the individuals and entities described above, the other references appear nonsensical. For instance, the very first individual or entity to which the statute refers is the Administrator of the EPA. CAA 211(o)(2)(A)(i). Likewise, the paragraph refers to the Secretary of Energy and the Secretary of Agriculture. CAA 211(o)(2)(B)(ii). However, it is not clear how or why EPA would conduct an analysis of regulatory impacts on the head of this agency or of other federal departments. Indeed, we are unaware of ever before having done an analysis of regulatory impacts on an agency head. Nor do we believe that such an impacts analysis would inform the "appropriate adjustment" of the volume requirements or otherwise further the intent of Congress.[13] Applying this cross-reference as written would therefore appear nonsensical, and we decline to do so.

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[11] For example, EISA appears to use these two words with similar meaning in EISA section 203(a)(5) (requiring the National Academy of Sciences, in conducting a study of RFS impacts, to seek the participation and consider the input of "individuals and entities interested in issues relating to conservation, the environment, and nutrition"); EISA section 423 (requiring the government to "carry out public outreach to inform individuals and entities of the information and services available governmentwide"); EISA section 654 (adding 42 U.S.C. 16396(f)(3), which describes an eligible "individual or entity" as respectively referring to citizens and legal permanent residents, and entities incorporated and maintaining a primary place of business in the United States).

[12] EPA notes that, in a prior version of the bill that became EISA, this cross-reference referred to an entirely different list of individuals and entities. See Public Print section 111(j)(6)(A)(iii) (referring to Public Print section 111(j)(2)). (That list was included as part of the EISA bill, albeit with substantial revisions. The list, however, was not added in to the CAA as an amendment). We are not aware of any statutory evidence indicating whether Congress intentionally superseded the reference to the earlier list with the existing reference to CAA 211(o)(2). In any event, since the text of the enacted phrase ("each individual and entity described in paragraph (2)") is at least partially sensible, the enacted text controls. *See Hamer v. Neighborhood Housing Servs.*, -- U.S. --, No. 16-658, Slip Op. 7-8 (2017) ("we resist speculating whether Congress acted inadvertently," and rather "presume more modestly instead that the legislature says what it means and means what it says" (internal formatting omitted)).

[13] CAA 211(o)(2)(A)(i) also includes the phrase "new facilities that commence construction after the date of enactment of this sentence [December 19, 2007]," as part of the requirement for EPA to establish regulations to ensure that transportation fuel contains at least the applicable volumes of renewable fuel. We do not believe that this

II. Fulfillment of the Obligation to Conduct Periodic Reviews

The following three subsections describe the periodic reviews we have conducted for the three prongs set forth in CAA 211(o)(11): existing technologies, the feasibility of achieving compliance with the requirements, and the impacts of the requirements described in subsection (a)(2) on each individual and entity described in paragraph (2). In past years, we have conducted such periodic reviews, and made them publicly available through rulemakings published in the *Federal Register* and in supporting documents, as well as through non-rulemaking actions associated with the RFS program. Notwithstanding that we have not until today explicitly labeled these as "periodic reviews," they nevertheless satisfy the requirements of Section 211(o)(11).

A. Existing Technologies

In compliance with CAA 211(o)(11)(A), we have conducted periodic reviews of existing technologies in several contexts. The first was conducted as part of the RFS1 final rulemaking published on May 1, 2007,[14] and a more comprehensive review was conducted as part of the RFS2 final rulemaking published on March 26, 2010.[15] In the RFS2 rulemaking, we reviewed a full array of technologies throughout the full supply chain system. This review included technology for producing renewable feedstocks and renewable fuels (Section IV.B of that rulemaking) and technology for distributing, blending, dispensing, and consuming renewable fuel (Section IV.C). In subsequent rulemakings, including those in which we set the applicable annual standards, we reviewed updated and new data on advances in various technologies.[16] For instance, in the rulemaking that established the 2017 annual standards, we reviewed technology associated with cellulosic biofuel production (Section III.B) and infrastructure to produce and dispense higher-level ethanol blends (Section V.B.1).[17] In 2014, in light of developments in technology, we approved a pathway for cellulosic biofuel using biogas as a feedstock.[18] In a

passing reference can sensibly be understood to impose a requirement for EPA to evaluate the impact of the RFS volume requirements on these biofuel production facilities (and no others). Had Congress wanted EPA to conduct periodic reviews for "renewable fuel production facilities," it could easily have used that phrase or a similar phrase like "biofuel production facilities," particularly in the extensive list of subjects for analysis in section 211(o)(2)(B)(ii). *Cf.* CAA 211(o)(2)(B)(ii)(V) (referring to "consumers of transportation fuel"). Moreover, it is not clear why Congress would want EPA to study the impacts on only the new facilities that commenced construction after the date of EISA's enactment. The purpose of the periodic reviews is to facilitate EPA's "appropriate adjustment" of the volume requirements in CAA 211(o)(2)(B), but our adjustment occurs on a fuel category basis, *see, e.g.*, CAA 211(o)(7)(D) (authorizing EPA to adjust volumes of cellulosic, advanced, and BBD biofuels), and not according to when facilities were built. Furthermore, the purpose of the statutory distinction between "new facilities that commence construction after the date of enactment of this sentence" and other facilities was to establish grandfathering provisions relating to the RFS lifecycle GHG performance thresholds at the start of the program — not EPA's authority to make subsequent adjustments of volume requirements.

[14] 72 FR 23900.

[15] 75 FR 14670. *See also* the associated Regulatory Impact Analysis (EPA-420-R-10-006, February 2010), Chapter 1.

[16] *See, e.g.,* 75 FR 76790, 77 FR 1320, 77 FR 59458, 78 FR 49794, 80 FR 77420.

[17] 81 FR 89746.

[18] 79 FR 42128.

proposed rulemaking to implement other aspects of the RFS program, we have reviewed existing technologies for producing biointermediates and for generating Renewable Identification Numbers (RINs) for renewable electricity.[19]

Finally, we have also reviewed and considered existing technologies in a number of non-rulemaking contexts. In the context of reviewing petitions for new RIN-generating pathways submitted through §80.1416 and the Efficient Producer petition process, we have evaluated numerous technologies for converting renewable biomass into qualifying renewable fuel.[20] We have also reviewed technologies for separating recyclable material from municipal solid waste in the context of waste separation plans required under §80.1426(f)(5).[21]

B. Feasibility of Achieving Compliance with the Requirements

In compliance with CAA 211(o)(11)(B), we have conducted periodic reviews of the feasibility of achieving compliance with the requirements of the RFS program primarily in the context of rulemakings which establish the applicable annual standards. For purposes of this component of the periodic review, EPA has focused on the feasibility of achieving compliance with the annual percentage standards for the market as a whole, and has provided impacts on individuals and entities in the next section.

In the RFS2 final rulemaking, we reviewed the feasibility of achieving compliance with the statutory volume targets for 2010, concluding that meeting the volume target for cellulosic biofuel was not feasible but that meeting the other three volume targets were feasible (Section II.E.1.b). In subsequent rulemakings to set the applicable annual standards, we also reviewed the feasibility of achieving compliance with the statutory volume targets in the context of determining whether and to what degree to employ the waiver authorities. For instance, in the rulemaking to set the 2012 standards we again concluded that the statutory volume target for cellulosic biofuel was not feasible, but that there was no need to waive the advanced biofuel or total renewable fuel standards because those standards could be met (Section II.B).[22] In the rulemaking to set the 2013 standards, we evaluated whether the total renewable fuel and advanced biofuel standards could be met, and concluded that compliance could be achieved through the use of carryover RINs.[23]

However, in the rulemakings setting the applicable standards for 2014-2016, 2017, and 2018, we concluded that none of the statutory volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuels were feasible based on a review of existing production and distribution technologies and infrastructure.[24] In the context of the 2018 final rule, we evaluated all of the waiver authorities provided in 211(o)(7) to determine whether additional reductions

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[19] 81 FR 80828.
[20] "Completed pathway assessments," available in docket EPA-HQ-OAR-2017-0627.
[21] *See, e.g.*, "Decision Document - Approval of Fiberight Municipal Solid Waste Separation Plan," June 2012. Available in docket EPA-HQ-OAR-2017-0627.
[22] 77 FR 1320; *see also* 75 FR 76790 (annual rule establishing the 2011 standards).
[23] 78 FR 49794.
[24] 80 FR 77420, 81 FR 89746.

were justified beyond those achieved using the cellulosic waiver authority. The waiver authorities are designed to address different elements of feasibility, including supply, economic or environmental harm, and significant price increases for BBD. EPA concluded that waiver of the volume requirements beyond reductions under the cellulosic waiver authority were not warranted.[25]

Our reviews of the feasibility of achieving compliance with the requirements of the RFS program in these rulemakings have typically included considerations of such factors as the availability of qualifying feedstocks and the potential for feedstock switching, domestic renewable fuel production capacity, potential for imports of renewable fuel, an assessment of the E10 blendwall and opportunities for use of higher ethanol blends such as E15 and E85, the size and utility of the carryover RIN bank, and costs. EPA also evaluates the feasibility of achieving compliance with the requirements of the RFS program in setting the BBD standards for years after 2012. CAA 211(o)(2)(B)(ii) directs that EPA shall set the standards based on a review of implementation of the program and consideration of a number of factors, including the expected rate of production of renewable fuels, and the sufficiency of infrastructure to deliver and use renewable fuel. EPA has done this evaluation to establish the BBD standards for 2013-2019.[26]

EPA has also evaluated the feasibility of achieving compliance with the requirements of the RFS program in the context of requests for waivers of the statutory volume targets under CAA 211(o)(7). EPA received and responded to a request from the Governor of Texas to waive the 2008 and 2009 standards, which EPA evaluated and found was not warranted.[27] EPA received and responded to requests to waive the RFS standards in 2012 from the Governors of several states.[28] EPA also received requests for waivers of the 2014 standard and evaluated these requests, finding that to the extent that EPA's own action in waiving the volumes satisfies the requests, they were moot, and denying the request for any additional reductions.[29] EPA has received and responded to requests to waive the RFS standards as recently as January of 2017 for the 2016 cellulosic biofuel standard.[30]

Based on these considerations and our assessment of the feasibility of achieving compliance with the requirements of the RFS program, we have fulfilled the requirement to conduct a periodic review consistent with subparagraph (B) of 211(o)(11).

C. *Impacts of the Volume Targets on Refineries, Blenders, Distributors and Importers; and Consumers of Transportation Fuel*

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[25] *See* "Renewable Fuel Standards Program: Standards for 2018 and Biomass-Based Diesel Volume for 2019," available at Docket ID No. EPA-HQ-OAR-2017-0091.
[26] *See* 75 FR 76790, 77 FR 1320, 77 FR 59458, 78 FR 49794, 80 FR 77420.
[27] 73 FR 47168.
[28] See 77 FR 70752.
[29] 80 FR 77420, 77429.
[30] Denial of AFPM Petition for Waiver of 2016 Cellulosic Biofuel Standard, January 17, 2017, available at: https://www.epa.gov/sites/production/files/2017-01/documents/afpm-rfs-petition-decision-ltr-2017-01-17.pdf. EPA has also received a waiver request from Pennsylvania (November 2, 2017) to which EPA will respond in a separate action.

Because the statutory language of Subparagraph (C) is unintelligible, it is inoperative. But if we assume the provision is operative as described in Section I.B.2 above, we would construe the statute as directing EPA to review the impacts of the RFS volume targets in CAA 211(o)(2) on certain regulated entities (specifically refineries, blenders, distributors, and importers) and consumers of transportation fuel. In this context, actions on several fronts fulfill the obligation to conduct periodic reviews in compliance Subparagraph (C) of 211(o)(11).

In the 2010 rulemaking which instituted the RFS2 program, we evaluated the impacts of the program on regulated small entities in the context of the small producer exemption (Section III.C) and exemptions for small refineries and small refiners (Section III.E). We also conducted an analysis of small entities that may be subject to the RFS2 program and presented the analysis in a Report of the Small Business Advocacy Review Panel.[31] In addition, we evaluated the impacts of the program on all regulated entities in the context of the 20% RIN rollover cap (Section III.D), in establishing Information Collection Requests, and in evaluating impacts on consumers of transportation fuel through our assessment of costs (Section VII).[32]

Under CAA section 211(o)(9), small refineries may, on a case-by-case basis, petition EPA for an extension of their exemption beyond the December 31, 2010 automatic exemption provided by the statute. EPA may approve such petitions if it finds that "disproportionate economic hardship" exists.[33] These evaluations are facility-specific and include considerations of each facility's unique structural and economic circumstances in light of the specific standards from which they are seeking an exemption.

In 2012 we received a waiver request from several States. In the context of evaluating and responding to that request, we evaluated impacts of the program on ethanol production and use, feed prices, and fuel prices.[34] Implicit in this evaluation were impacts on refiners and importers of petroleum fuels, blenders, fuel distributers, ethanol producers, farmers, and consumers.

The annual rulemakings that establish the applicable standards for each compliance year have included an evaluation of the impacts on regulated parties of those standards in the context of our assessment of whether the standards are feasible and appropriate. These evaluations have included the ability of refineries to blend ethanol into their gasoline or, in lieu of such blending, purchase RINs on the open RIN market.[35] These rulemakings have also included an evaluation of impacts on consumers of transportation fuel in the estimation of illustrative costs of the

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[31] Available in the docket EPA-HQ-OAR-2005-0161.

[32] Beyond impacts on refineries, blenders, distributors and importers, we also evaluated the impacts on renewable fuel production facilities in the context of the ethanol production facility grandfathering provisions of Section 210 of the Energy Independence and Security Act of 2007 (Section II.B.3), and conducted an assessment of biofuel distribution, blending, and dispensing (Sections IV.C and IV.D).

[33] At the current time, EPA estimates that there are 38 refineries eligible for RFS small refinery hardship relief. For 2013, EPA evaluated 16 petitions. For 2014, EPA evaluated 12 petitions. For 2015, EPA evaluated 14 petitions. For 2016, EPA evaluated 16 petitions.

[34] "Response to 2012 waiver request," available in docket EPA-HQ-OAR-2017-0627.

[35] While this is not required by Section 211(o)(11)(C), we have also evaluated the impacts of the BBD and advanced biofuel standards on biodiesel producers.

standards.[36] In the rulemakings which established the 2014-2016 standards and the 2017 standards, we evaluated the impact of RIN values on regulated parties to determine whether and to what degree those values were passed through from producers and importers of renewable fuel to retail consumers.[37] In the annual rulemakings, EPA has also evaluated the impacts of the standards on small entities.[38]

Finally, in our response to several petitions to reconsider or initiate a rulemaking to modify the point of obligation, codified at 40 CFR 80.1405, we evaluated the comparative impact of the point of obligation on affected parties. Many petitioners suggested that the current point of obligation was harming merchant and small refiners, as well as other parties such as small retailers, and that it was unfairly benefiting non-obligated parties who nonetheless blended and acquired RINs. Before responding to the petitions, EPA closely examined the impact of the current program on refiners and other market participants, and the impact that could be expected from moving the "point of obligation." After review and consideration of comments received on a proposed denial to change the point of obligation, EPA denied these petitions for rulemaking and reconsideration. EPA found that the current regulations do not appear to disproportionately harm merchant or small refiners, nor do they harm small retailers or provide windfall profits to unobligated blenders. Additionally, EPA found that the current "point of obligation" is appropriate, and that changes proposed by petitioners could result in significant disruption in the fuels marketplace and would be unlikely to result in additional renewable fuel being used.[39] Within the denial, EPA also evaluated the contention that the current point of obligation was increasing fuel prices for consumers.[40]

[36] *See, e.g.*, 81 FR 89746 (Section V.D).
[37] 80 FR 77420, 81 FR 89746.
[38] *See, e.g.*, 80 FR 77420 (Section IX.C.), "Screening Analysis for the Final Renewable Fuel Standard Program Renewable Volume Obligations for 2017," memorandum to the docket EPA-HQ-OAR-2016-004.
[39] *See* "Denial of Petitions for Rulemaking to Change the RFS Point of Obligation," available in docket EPA-HQ-OAR-2016-0544, November 22, 2017.
[40] *See* "Denial of Petitions for Rulemaking to Change the RFS Point of Obligation," available in docket EPA-HQ-OAR-2016-0544, November 22, 2017.