EPA Statutory Authority Biogenic Rulemakings – Biogenic CO2 Coalition

Issue: Will re-interpretation of 2009 Endangerment Finding or Tailpipe Rule Solve Clean Air Act Applicability to Biogenic Emissions?

	Rule	Citation	Authority	Analysis
	Summary of Argument			***Summary of Argument*** EPA has ample basis, considering the administrative record, to take the position with respect to the 2009 Endangerment Finding that: (1) the 2009 Endangerment Finding was not intended to encompass biogenic emissions within the **scope of elevated concentrations** of greenhouse gas in the atmosphere, which are the air emissions that EPA determined to be the 'endangering' pollution, notwithstanding a response to comments document prepared by EPA staff that purported to express EPA's position that there is no distinction between biogenic and fossil CO2; (2) even if EPA intended to include biogenic emissions within the determination of harmful pollution, **EPA did not in fact study** the science underlying biogenic emissions and elevated concentrations of greenhouse gases (as evidenced by the lack of any scientific discussion in the administrative record and consistent with EPA's subsequent decision to develop an accounting framework), and therefore the 2009 Endangerment Finding is fatally flawed with respect to biogenic emissions and must be interpreted to exclude biogenic emissions; (3) even if the 2009 Endangerment Finding included biogenic emissions, the 2010 **Tailpipe Rule did not impose actual control** on biogenic emissions (in that

				tailpipe emissions from biofuels are either not counted or otherwise credited), which is a prerequisite for regulation as a pollutant subject to regulation for purposes of the PSD automatic trigger provisions as a result of the Tailpipe Rule. (4) after recognizing that biogenic CO2 emissions are not currently regulated, EPA may continue its ongoing **study of biogenic CO2** to decide on the basis of a responsible scientific record whether to regulate, or alternatively recognize the *de minimis* nature of, biogenic emissions. EPA may revisit its interpretation of its prior interpretations or policy provisions on these bases. See Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule, 82 Fed. Reg. 48035,48039 (Oct. 16, 2017) (EPA has inherent authority to reconsider, repeal, or revise past decisions to the extent permitted by law so long as the Agency provides a reasoned explanation). Any or all of the above form a proper basis for EPA to take the position that biogenic CO2 emissions are not currently regulated and not pollutants subject to regulation, and to resolve pending litigation on that basis.
1	2009 Endangerment Finding	74 Fed. Reg. 66496 (Dec. 15, 2009)	The Administrator shall by regulation prescribe . . . standards applicable to [vehicle emissions] which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. CAA 202(a), 42 USC 7521(a).	Argument: The 2009 EPA Endangerment Finding is imprecisely worded but defines either the endangering pollution or the endangering situation as elevated concentrations of GHG in the atmosphere, which necessarily implies that there is a baseline concentration that is not pollution or is not endangering (i.e., not harmful). Thus, even if biogenic emissions are pollutants because they are included in the suite of greenhouse gases, they are part of the baseline concentration but not part of the harmful elevated concentration. The 2009

			IV. The Administrator's Finding That Greenhouse Gases Endanger Public Health and Welfare The Administrator finds that *elevated* concentrations of greenhouse gases in the atmosphere may reasonably be anticipated to endanger the public health and to endanger the public welfare of current and future generations. The Administrator is making this finding specifically with regard to six key directly-emitted, long lived and well-mixed greenhouse gases 74 Fed. Reg. at 66516:2 (emphasis added). Administrator finds that the air pollution is the combined mix of six key directly-emitted, long-lived and well-mixed greenhouse gases (henceforth ''well-mixed greenhouse gases''), which together, constitute the root cause of human-induced climate change and the resulting impacts on public health and welfare. 74 Fed. Reg. at 66516:3. the Administrator is defining the air pollution for purposes of the endangerment finding to be the *elevated* concentration of well-mixed greenhouse gases in the atmosphere . . . Administrator's finding that emissions of well-mixed greenhouse gases from	Endangerment Finding simply never considered whether biogenic emissions should be regulated as elevated dangerous pollution. Background: The 2009 EF does not expressly address biogenic emissions, except for the RTC passage; the Federal Register does not mention the term biogenic even once, and biomass is mentioned only twice and neither in relation to the biogenic issue. Similarly, the term life cycle is mentioned only twice in the EF and neither in relation to the biogenic issue. To the extent that EPA takes the position that the 2009 EF included biogenic emissions, EPA's EF with respect to biogenic emissions is arbitrary and capricious in that the agency failed to reconcile its finding that elevated concentrations are the endangering condition with the fact that biogenic emissions do not scientifically contribute to increased stocks (i.e., concentrations) of greenhouse gas in the atmosphere, and the agency entirely failed to consider a material factor in the endangerment analysis by ignoring the life-cycle science, literature and other government policies (including Congress' renewable energy policies enacted only 2 years earlier) all of which recognize biogenic emissions from agricultural feedstocks as carbon neutral and negligible in terms of contribution to atmospheric concentrations. Similarly, EPA entirely failed to consider as a critical factor how the life cycle of biogenic emissions (in which the CO2 emitted from processing of crops was only months before captured out of the atmosphere and stored in the crop biomass) might inform and affect the Administrator's endangerment finding. Similarly, the Administrator entirely neglected to consider in her cause-and-

			new motor vehicles contribute to the air pollution which is reasonably anticipated to endanger public health and welfare. 74 Fed. Reg. at 66536:3 (emphasis added). EPA, *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act: EPA's Response to Public Comments*, Vol. 9: The Endangerment Finding, at 5 (2009) (EPA-HQ-AR-2009-0171-11676) (2009 RTC Vol. 9) (all CO2 emissions, regardless of source, influence radiative forcing equally once it reaches the atmosphere and therefore there is no distinction between biogenic and non-biogenic CO2 regarding the CO2 and other well-mixed GHGs within the definition of air pollution that is reasonably anticipated to endanger public health and welfare).	contribute finding that biogenic emissions from crop-based fuels were generally considered under other EPA policies (including the statutory renewable fuels program) as not contributing to elevated greenhouse gas concentrations. EPA, in subsequent greenhouse gas rules, has acknowledged the critical distinction between the baseline concentration of greenhouse gases and the elevated concentration that the agency found to be harmful in the 2009 Endangerment Finding: Greenhouse gases trap the Earth's heat that would otherwise escape from the atmosphere into space, and form the greenhouse effect that helps keep the Earth warm enough for life. Tailoring Rule, 75 Fed. Reg. at 31518:3 EPA has also acknowledged that a baseline concentration of greenhouse gas is essential, and only the excess emissions cause harm through global warming: Greenhouse gases trap the Earth's heat that would otherwise escape from the atmosphere into space, and form the greenhouse effect that helps keep the Earth warm enough for life . . . When they are emitted more quickly than natural processes can remove them from the atmosphere, their concentrations increase, thus increasing the greenhouse effect. Tailoring Rule, 75 Fed. Reg. at 31518-19. The fact that EPA subsequently embarked on a study focused on the appropriate accounting of biogenic emissions in its 2001 Accounting Framework for Biogenic CO2 Emissions from Stationary Sources is consistent with a reading of the 2009 Endangerment Finding did not contemplate biogenic emissions as the harmful pollution

				or endangering condition. See Deferral Rule, 76 Fed. Reg. 43490 (July 20, 2011) [cite SAB charge, BAF document/website]. EPA acknowledged in the EF that the concept of life-cycle uptake and recycling of carbon was a material factor in the endangerment analysis, yet failed to consider how biogenic emissions should be assessed under this framework: As discussed in the Proposed Findings, to help appreciate the distinction between air pollution and air pollutant, the *air pollution* can be thought of as the total, cumulative stock in the atmosphere, while the *air pollutant can be thought of as the [carbon] flow that changes the size of the total [carbon] stock*. Endangerment Finding, 74 Fed. Reg. at 66536:3 (emphasis added). The discussion of flow and stocks is consistent with the scientific literature that recognizes that biogenic emissions are carbon neutral on a life cycle basis and should be disregarded in emissions regulation. See, *e.g.*, Seungdo Kim, Ph.D and Bruce E. Dale, Ph.D, The Biogenic Carbon Cycle in Annual Crop-Based Products, Michigan State University (Nov. 22, 2013) (available at www.biogenicCO2.com). The D.C. Circuit has ruled that nothing in the CAA requires regulation of a substance simply because it qualifies as an 'air pollutant' under this broad definition. Coalition Resp. Reg., Inc. v. EPA, 864 F.3d 102, 135 (D.C. Cir. 2012).
2	Tailpipe Rule	75 Fed. Reg. 25324 (May 7, 2010)		Argument: The Tailpipe Rule does not regulate biogenic emissions because the 2009 Endangerment Finding addressed emissions of a harmful air pollutant that did not encompass biogenic emissions. In addition, because biogenic emissions are not subject to actual control in the Tailpipe Rule, they are not a pollutant subject to

				regulation for purposes of Clean Air Act permitting programs. The endangerment and contribution findings described previously require EPA to issue standards under section 202(a) 'applicable to emission' of the air pollutant [i.e., carbon flows that change carbon stocks] that EPA found causes or contributes to the air pollution that endangers public health and welfare. Tailoring Rule, 75 Fed. Reg. at 31519:3 (describing scope of Tailpipe Rule). The Tailpipe Rule regulates the same air pollutant referenced in EPA's 2009 Endangerment Finding. See Tailpipe Rule, 75 Fed. Reg. at 25686; 40 CFR § 86.1818–12 (Greenhouse gas emission standards for light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles. (a) Applicability. This section contains standards and other regulations applicable to the emission of the air pollutant defined as the aggregate group of six greenhouse gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.). As argued above, the EF could not have found that biogenic emissions create an endangering situation or contribute to greenhouse gas pollution because biogenic emissions do not contribute to elevated concentrations of greenhouse gas compared to baseline levels that are necessary for global climate stability. Similarly, biogenic emissions are not carbon flows that change carbon stocks, as pollution was defined in the 2009 Endangerment Finding. The Tailpipe Rule does not impose actual control on biogenic CO2 from vehicle tailpipe emissions, therefore biogenic CO2 is not a 'pollutant subject to regulation' for

				PSD purposes by virtue of the Tailpipe Rule's requirements for control of fossil CO2 from vehicles. Rather than imposing actual control of biogenic CO2 from vehicle tailpipes, for model years 2012-2015 the Tailpipe Rule counts biogenic CO2 emissions as carbon neutral through the mechanism of a credit for E85 using a 0.15 volumetric conversion factor. Tailpipe Rule, 75 Fed. Reg. at 25432 (the measured CO2 emissions on the alternative fuel will be multiplied by a 0.15 volumetric conversion factor which is included in the CAFE calculation as provided by EPCA. Through this mechanism a gallon of alternative fuel is deemed to contain 0.15 gallons of fuel . . . the CO2 emissions value for the vehicle is calculated to be significantly lower than it actually would be otherwise, even if the vehicle were assumed to operate on the alternative fuel at all times. This represents a 'credit' being provided to FFVs.). For model years 2016 and subsequent, the Tailpipe Rule greenhouse standard is based on actual tested tailpipe CO2, without the conversion factor and not differentiating biogenic CO2 and fossil CO2. See Tailpipe Rule, 75 Fed. Reg. at 25433 (Starting with model year 2016, as proposed, EPA will no longer allow manufacturers to base FFV emissions on the use of the 0.15 factor credit described above, and on the use of an assumed 50% usage of alternative fuel. Instead, EPA believes the appropriate approach is to ensure that FFV emissions are based on demonstrated emissions performance . . . Therefore, EPA is basing the FFV program for MYs 2016 and thereafter on real-world reductions: i.e., actual vehicle CO2 emissions levels based on actual use of the two fuels, without the 0.15 conversion factor specified under EISA.). However, EPA recognized that the carbon neutrality of biogenic CO2 is

				credited in the RFS2 program such that no additional crediting under the Tailpipe Rule was needed. Tailpipe Rule, 75 Fed. Reg. at 25434 (EPA is not including lifecycle emissions in the calculation of vehicle credits. EPA continues to believe that it is appropriate to base credits for MY 2012–2015 on the EPCA/ CAFE credits and to base compliance values for MY 2016 on the demonstrated tailpipe emissions performance on gasoline and E85, and is finalizing this approach as proposed. EPA recently finalized its RFS2 rulemaking which addresses *lifecycle emissions from ethanol and the upstream GHG benefits of E85 use are already captured by this program*.) (emphasis added). EPA recognized in the Tailpipe Rule that it has the authority to consider lifecycle emissions and emissions upstream of the emissions source. Tailpipe Rule, 75 Fed. Reg. at 25437 (EPA disagrees with Nissan that excluding upstream GHGs is legally required under section 202(a)(1). In this rulemaking, EPA is adopting standards under section 202(a)(1), which provides EPA with broad discretion in setting emissions standards. This includes authority to structure the emissions standards in a way that provides an incentive to promote advances in emissions control technology. This discretion includes the adjustments to compliance values adopted in the final rule, the multipliers we proposed, and other kinds of incentives. EPA recognizes that we have not previously made adjustments to a compliance value to account for upstream emissions in a section 202(a) vehicle emissions standard, but that does not mean we do not have authority to do so in this case) (discussing decision to exclude upstream GHG emissions from electricity used in electric vehicles).

3	Timing Rule	75 Fed. Reg. 17004 (June 3, 2010)		Reaffirmed EPA's actual control interpretation of PSD/Title V trigger. See Tailoring Rule, 75 Fed. Reg. at 31521 (describing Timing Rule interpretation and context).
4	Tailoring Rule	75 Fed. Reg. 31514 (June 3, 2010)	CAA 202(a), 42 USC 7521(a). The endangerment and contribution findings described previously require EPA to issue standards under section 202(a) 'applicable to emission' of the air pollutant that EPA found causes or contributes to the air pollution that endangers public health and welfare. 75 Fed. Reg. 31519:3. Under EPA's longstanding interpretation, a pollutant, such as a GHG, is ''subject to regulation'' when it is subject to a CAA requirement establishing actual control of emissions. 75 Fed. Reg. 31521:1.	Note: AFPA/NAFO petition (10-1209) in abeyance Argument: Biogenic CO2 emissions are not now regulated because the Timing Rule and/or Tailoring Rule are vacated and EPA has not yet issued replacement rules. EPA states that under CAA 202(a) the tailpipe standards are applicable to emission of only the pollutant subject to the 2009 Endangerment Finding, see 75 Fed. Reg. 31519:3; accordingly, it is logical that if biogenic emissions were not part of the endangerment finding, then they are not legally part of the Tailpipe Rule nor pollutants subject to regulation for PSD purposes. Tailoring Rule tacitly assumes biogenic is a regulated pollutant and rejects commenter request for an exemption, but notes that the rule does not foreclose EPA's ability to exempt biogenic and EPA do not take a final position with respect to an applicability exclusion for biogenic emissions in the PSD/Title V context in the Tailoring Rule, Tailoring Rule, 75 Fed. Reg. at 31591:1, although EPA did not address the question of the proper interpretation of the Endangerment Finding or Tailpipe Rule with respect to biogenic emissions. Tailoring Rule did not address biogenic issues, and thus is at best irrelevant to PSD applicability to biogenic emissions. Deferral Rule 76 Fed. Reg. at 43492 (in the final Tailoring Rule, EPA decided not to provide exemptions from applicability determinations . . .under PSD and Title V for . . . biogenic emissions).

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5	PSD Preconstruction Permitting		CAA 169 ("The term *best available control technology* means an emission limitation based on the maximum degree of reduction of each pollutant *subject to regulation* under this chapter emitted from or which results from any major emitting facility"). Greenhouse gases are regulated under PSD and Title V pursuant to automatic operation of the CAA Coalition Resp. Reg., Inc. v. EPA, 864 F.3d 102, 144 (D.C. Cir. 2012).	Pursuant to long-standing EPA policy, the PSD and Title V are applicable to emissions of pollutants that are subject to regulation under the Clean Air Act. Tailoring Rule, 75 Fed. Reg. at 31520:2 (PSD applies to major sources and the major source definition incorporates the phrase 'subject to regulation'), 31521:1 (Title V applies when greenhouse gas emissions are 'subject to regulation' when it is subject to a CAA requirement establishing actual control of emissions). The pollutant at issue with respect to the PSD and Title V programs is the same suite of greenhouse gases (including fossil CO2 emissions) for which EPA made the 2009 Endangerment Finding. See Tailoring Rule, 75 Fed. Reg. at 31522:1 (We are identifying the air pollutant for purposes of PSD and title V applicability to be the pollutant subject to regulation, which is the air pollutant for GHGs identified in EPA's [Tailpipe Rule], as well as EPA's endangerment and contribution findings.). EPA considers a pollutant covered by the PSD and Title V programs only when the pollutant is previously subject to actual control of emissions by an antecedent requirement of the Clean Air Act. See Tailoring Rule, 75 Fed. Reg. at 31521:2 (a pollutant is 'subject to regulation' only if it is subject to either a provision in the CAA or regulation adopted by EPA under the CAA that requires actual control of emissions of that pollutant). Because under a proper interpretation of the Endangerment Finding, the Tailpipe Rule did not address biogenic emissions and therefore does not require actual control of biogenic emissions from vehicle tailpipes, nor does any other Clean Air Act provision set actual controls for biogenic CO2 (other than the NSPS and CPP rules,

				which are both under challenge), the PSD and Title V programs do not apply to emissions of biogenic CO2. Because biogenic emissions were not included in the 2009 Endangerment Finding, they cannot be 'subject to regulation' in terms of triggering PSD permitting requirements. In addition, because the 2010 Tailpipe Rule credits biogenic emissions as carbon neutral, biogenic emissions have never (prior to the 2015 CPP) been subject to any actual control and therefore are not 'subject to regulation' in terms of triggering PSD permitting requirements. Alternatively, even if the Endangerment Finding intended to include biogenic emissions as part of the greenhouse gas air pollution, the Tailpipe Rule does not actually impose any actual controls on emissions of biogenic CO2 from vehicle tailpipes because all biogenic emissions are credited as carbon neutral. [see discussion of Tailpipe Rule]
6	Deferral Rule	76 Fed. Reg. 43490 (July 20, 2011)	Deferred application to PSD permitting for 3 years; overturned by D.C. Circuit for lack of administrative authority in *CBD v. EPA* (No. 11-1101)	The Deferral Rule is not itself legally relevant to regulation of biogenic emissions under the Clean Air Act because it expired by its own terms, it was invalidated by the D.C. Circuit on non-substantive grounds, and did not itself purport to be the basis for Clean Air Act regulation of biogenic emissions. The existing of the Deferral Rule, and EPA's request for information on biogenic emissions, shows that the 2009 EF did not constitute a final EPA action on endangerment from biogenic emissions. 76 Fed. Reg. at 43492 (purpose of EPA's July 15, 2015 Call for Information was to assess

				underlying science that should inform any such accounting approach for biogenic emissions). In the 2011 Deferral Rule, EPA stated that [d]uring the three-year deferral period, EPA will conduct a detailed examination of the science associated with biogenic CO2 emissions from stationary sources, 76 Fed. Reg. 43492:2, indicating that it had not undertaken a detailed scientific examination of biogenic emissions in the 2009 EF and therefore had no basis to determine that biogenic emissions are climate change pollutants like fossil fuel emissions. EPA also acknowledged that feedstocks with negligible net atmospheric impact not be subject to unnecessary regulation. 76 Fed. Reg. at 43492:3. In the Deferral Rule, EPA took the position that biogenic emissions were regulated as a 'pollutant subject to regulation' alluding to (but not specifying) the tailpipe rule as the genesis of such regulation. 76 Fed. Reg. at 43493:2 (EPA's long-standing regulations limit the PSD applicability provision that refers to ''any air pollutant'' to refer to any ''regulated NSR pollutant,'' which in turn includes any air pollutant ''subject to regulation'' under the CAA. Similarly, under sections 165(a)(4) and 169(3) of the CAA, the BACT requirement applies to ''each pollutant subject to regulation'' under the CAA. As noted in other recent EPA actions, GHGs are currently ''subject to regulation'' under the CAA; . . . Thus, emissions of GHGs (including CO2) must be considered in determining whether a source is a major emitting facility subject to PSD, as a result of construction or modification, and whether the BACT requirement applies to GHGs (including CO2 as a component of GHGs). In light of the way these regulations are currently written, EPA is unable

				to exclude biogenic CO2 emissions from PSD review without amending the regulations. 76 Fed. Reg. at 43493:2. According to EPA, biogenic emissions became subject to regulation for PSD purposes when GHGs were regulated in the Tailpipe Rule, 76 Fed. Reg. at 43493:3 ("as of January 2, 2011, the date by which EPA determined that GHGs become subject to regulation under the CAA as a result of the motor vehicle rule"); the Tailpipe Rule in turn rests on the 2009 EF finding that certain greenhouse gas emissions contribute to elevated levels of greenhouse gas in the atmosphere. EPA recognized that biogenic CO2 emissions impacts are unique. 76 Fed. Reg. at 43496:1 ("In contrast to other sources of GHG emissions, these uncertainties and complexities are exacerbated because of the unique role and impact biogenic sources of CO2 have in the carbon cycle"). EPA failed to evaluate the "unique" situation of biogenic emissions. EPA took the position in the Deferral Rule that there is no currently available methodology to measure the impact of biogenic emissions; therefore, how could EPA have completed an endangerment finding concluding that biogenic CO2 causes global warming? 76 Fed. Reg. at 43496:1 (Further, methodologies are not sufficiently developed to assure that various permitting authorities would be able to perform the necessary calculations reasonably and consistently to determine the net atmospheric impact).

				In fact, EPA admitted that biogenic feedstocks may actually be carbon neutral or even carbon beneficial such that regulating facilities under the Clean Air Act for biogenic emissions would result in over-regulation. 76 Fed. Reg. at 43496:2-3 (EPA may ultimately determine that the utilization of some or all biomass feedstocks for bioenergy has a negligible (or de minimis), negative, or positive net impact on the carbon cycle.); 76 Fed. Reg. at 43499:1 (EPA believes based on information currently before the Agency that at least some biomass feedstocks that may be utilized to produce energy or other products have a negligible impact on the net carbon cycle, or possibly even a positive net effect.).
7	NSPS (111(a) new power plants)			See below ESPS/CPP 111(d).
8	Clean Power Plan (111 existing power plants)		McCabe Memo: Janet McCabe, Assistant Administrator, *Addressing Biogenic Carbon Dioxide Emissions from Stationary Sources*, dated Nov. 19, 2014 ("McCabe Memo"), "EPA plans to propose revisions to the PSD rules to include an exemption for the [BACT] requirement for GHGs from waste-derived feedstocks and from non-waste biogenic feedstocks derived from sustainable forest or agricultural practices . . . if the applicant can demonstrate that these feedstocks in fact come from sustainably managed lands . . . all other biogenic feedstocks . . . would remain subject to the GHG BACT requirement at this time");	Argument: The CPP is predicated on the 2009 Endangerment Finding: In 2009, based on a large body of robust and compelling scientific evidence, the EPA Administrator issued the Endangerment Finding under CAA section 202(a)(1). In the Endangerment Finding, the Administrator found that the current, elevated concentrations of GHGs in the atmosphere—already at levels unprecedented in human history—may reasonably be anticipated to endanger public health and welfare of current and future generations in the U.S. 80 Fed. Reg. at 64682. Under CAA section 111(b), the EPA lists source categories which 'contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare,' and then establishes 'standards of

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			Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64662, 64886 (Oct. 23, 2015) ("Given the importance of sustainable land management in achieving the carbon goals of the President's Climate Action Plan, sustainably-derived agricultural and forest biomass feedstocks may also be acceptable as qualified biomass in a state plan, if the state-supplied analysis of proposed qualified feedstocks or feedstock categories can adequately demonstrate that such feedstocks or feedstock categories appropriately control increases of CO2 levels in the atmosphere and can adequately monitor and verify feedstock sources and related sustainability practices.").	performance' for the new sources in the listed category. 80 Fed. Reg. at 64700. Under CAA section 111(d), there is no requirement that the EPA make a finding that the emissions from existing sources that are the subject of regulation cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. As predicates to promulgating regulations under CAA section 111(d) for existing sources, the EPA must make endangerment and cause-or-contribute-significantly findings for emissions from the source category, and the EPA must promulgate regulations for new sources in the source category. In the CAA section 111(b) rule for CO2 emissions for new affected EGUs that the EPA is promulgating concurrently with this rule, the EPA discusses the endangerment and cause-or-contribute-significantly findings and explains why the EPA has already made them for the affected EGU source categories so that the EPA is not required to make them for CO2 emissions from affected EGUs, and, in the alternative, why, if the EPA were required to make those findings, it was making them in that rulemaking. 80 Fed. Reg. 64709 n.284. In the CPP, EPA also improperly attempted to regulate sustainability on the farm field, or to condition recognition of biogenic emissions on whether crops were grown sustainability on the farm field.
9	Aircraft Engine Standards – 2016 Endangerment Finding		EPA, *Finding that Greenhouse Gas Emissions from Aircraft Cause or Contribute to Air Pollution that May Reasonably Be Anticipated to Endanger Public Health and Welfare*; Final Rule, 81 Fed. Reg. 54422 (Aug 15, 2016)	Argument: Because the 2016 Aircraft EF relies on the 2009 Vehicle EF, the same legal analysis applies. EPA simply has never undertaken a scientific review of biogenic emissions sufficient to justify regulating biogenic emissions as "elevated concentrations" of greenhouse gas in the atmosphere. EPA fails to acknowledge in the

			("The EPA reiterates that the Administrator defines the relevant air pollution considered in the endangerment finding as the aggregate group of the six well-mixed GHGs based on shared physical characteristics and common attributes relevant to climate change science and policy, which is not affected by consideration of the sources of the emissions contributing to the air pollution. In the record for the 2009 Endangerment Finding [i.e., EPA's response to comments, not in the rule itself], the Agency stated that "all CO2 emissions, regardless of source, influence radiative forcing equally once it reaches the atmosphere and therefore there is no distinction between biogenic and non-biogenic CO2 regarding the CO2 and the other well-mixed GHGs within the definition of air pollution that is reasonably anticipated to endanger public health and welfare." [FN2] The EPA continues to hold that position in these findings, which is supported by the evidence before it. First, the fact that these CO2 emissions originate from combustion of carbon-based fuels created through different processes is not relevant to defining the air pollution that is reasonably anticipated to endanger public health and welfare. The origin and constitution of a fuel prior to its	Aircraft EF that carbon from biogenic feedstocks is part of the baseline of existing carbon stocks, and not a contributor to flows of fossil carbon that is added to the atmosphere and creates "elevated" levels of greenhouse gas. EPA also incorrectly describes the scientific literature as supporting its position, when in fact every greenhouse gas program in the world other than EPA's Clean Air Act policy recognizes that biogenic emissions are different than fossil emissions and are lifecycle neutral. In addition, because the ICAO international agreement for aircraft GHG emissions, to which the US is a party, ultimately depends on the use of biofuels and recognizing the low-carbon nature of biogenic emissions, EPA's statements in the Aircraft EF cannot be reconciled with the scientific record or the agency's goals with regard to regulating greenhouse gas emissions. As its justification for refusing to distinguish in the Aircraft Rule between biogenic emissions and fossil fuel emissions, EPA asserts that it lacks authority to consider emissions outside of the emissions source itself, but cites to no legal authority for this proposition. In any event, this is inconsistent with previous EPA positions; for example, EPA recognized in the Tailpipe Rule that it does have inherent authority to consider lifecycle emissions and emissions upstream of the emissions source. See Tailpipe Rule, 75 Fed. Reg. at 25437 ("EPA disagrees with Nissan that excluding upstream GHGs is legally required under section 202(a)(1). In this rulemaking, EPA is adopting standards under section 202(a)(1), which provides EPA with broad discretion in setting emissions standards. This includes authority to structure the emissions standards in a way that provides an incentive

			combustion and subsequent emission into the atmosphere has no bearing on the fact that CO2 and the other well-mixed GHGs are all sufficiently long lived to become well mixed in the atmosphere, directly emitted, of well-known radiative forcing, and generally grouped and considered together in climate change scientific and policy forums as the primary driver of climate change. Moreover, as explained in section IV.C of this notice, the endangerment arises from the elevated concentrations of the six well-mixed GHGs in the atmosphere. A molecule of biogenic CO2 has the same radiative forcing effect as a molecule of fossil-fuel derived CO2. In other words, no matter the original source of the CO2, the behavior of the CO2 molecules in the atmosphere in terms of radiative forcing, chemical reactivity, and atmospheric lifetime is effectively the same. Any differential treatment of biogenic CO2 in the context of the endangerment finding would be inconsistent with the primary scientific basis for the grouping of the six well-mixed GHGs as a single class for purposes of identifying the air pollution (and air pollutant, as explained below). A more detailed response to the issues raised in this comment can be found in	to promote advances in emissions control technology. This discretion includes the adjustments to compliance values adopted in the final rule, the multipliers we proposed, and other kinds of incentives. EPA recognizes that we have not previously made adjustments to a compliance value to account for upstream emissions in a section 202(a) vehicle emissions standard, but that does not mean we do not have authority to do so in this case") (discussing decision to exclude upstream GHG emissions from electricity used in electric vehicles).

			the Response to Comments document in the docket. FN2: EPA, 2009. Response to Comments document, Volume 9: The Endangerment Finding, EPA–HQ–OAR–2009–0171–11676. Available at www.regulations.gov (last accessed April 11, 2016).	
10	Renewable Fuel Standard	2005 EPA/2007 EISA, CAA 211a	Tailpipe CO 2emissions from corn ethanol assumed offset by carbon uptake. See 2010 EPA RIA / USDA 2016 LCA.	Statutory Renewable fuel quota; biogenic emissions assumed carbon neutral; production LCA emissions comparison biofuel to fossil fuel; tailpipe emissions < 1%.