

Environmental Protection Agency

40 CFR Chapter 1

Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Proposed Rule

74 FR 18886 (April 24, 2009)

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II. Legal Framework for This Action

Two provisions of the CAA govern today's proposal. Section 202(a) sets forth a two-part predicate for regulatory action under that provision: endangerment and cause or contribute. Section 302 of the Act contains definitions of the terms air pollutant and welfare used in section 202(a). These statutory provisions are discussed below.

A. Section 202(a)—Endangerment and Cause or Contribute

As noted above, section 202(a) of the CAA calls for the Administrator to exercise her judgment and make two separate determinations: first, whether air pollution may reasonably be anticipated to endanger public health or welfare, and second whether emissions of any air pollutant from new motor vehicles or engines cause or contribute to this air pollution. Based on the text of this provision and its legislative history, **the Administrator interprets the two-part test as follows.**

First, the Administrator is required to protect public health and welfare. She is not asked to wait until harm has occurred but instead must be ready to take regulatory action to prevent harm before it occurs. **The Administrator is thus to consider both current and future risks.** Second, the Administrator is to exercise judgment by weighing risks, assessing potential harms, and making reasonable projections of future trends and possibilities. It follows that when exercising her judgment the Administrator balances the likelihood and severity of effects. This balance involves a sliding scale; on one end the severity of the effects may be significant, but the likelihood low, while on the other end the severity may be less significant, but the likelihood high.

Under either scenario, the Administrator is permitted to find endangerment. **If the harm would be catastrophic, the Administrator is permitted to find endangerment even if the likelihood is small.** In the context of climate change, for example, the Administrator should take account of the most catastrophic scenarios and their probabilities. As explained below, however, it is not necessary to rely on low-probability outcomes in order to find endangerment here.⁵

Because scientific knowledge is constantly evolving, the Administrator may be called upon to make decisions while recognizing the uncertainties and limitations of the data or information available, as risks to public health or welfare may involve the frontiers of scientific or medical knowledge. At the same time, the Administrator must exercise reasoned decision making, and avoid speculative or crystal ball inquiries. Third, the Administrator is to consider the cumulative impact of sources of a pollutant in assessing the risks from air pollution, and is not to look only at the risks attributable to a single source or class of sources. Fourth, the Administrator is to consider the risks to all parts of our population, including those who are at greater risk for reasons such as increased susceptibility to adverse health effects. If vulnerable subpopulations are especially at risk, the Administrator is entitled to take that point into account in deciding the question of endangerment. Here too, both likelihood and severity of adverse effects are relevant,

and here too, catastrophic scenarios and their probabilities should be considered. As explained below, vulnerable subpopulations face serious health risks as a result of climate change.

This framework recognizes that regulatory agencies such as EPA must be able to deal with the reality that “[m]an’s ability to alter his environment has developed far more rapidly than his ability to foresee with certainty the effects of his alterations.” See *Ethyl Corp v. EPA*, 541 F.2d 1, 6 (D.C. Cir.), cert. denied 426 U.S. 941 (1976). Both “the Clean Air Act ‘and common sense * * * demand regulatory action to prevent harm, even if the regulator is less than certain that harm is otherwise inevitable.’” See *Massachusetts v. EPA*, 549 U.S. at 506, n.7 (citing *Ethyl Corp.*). To be sure, the concept of “expected value” has its limitations in this context, but it is useful insofar as it suggests that when severe risks to the public health and welfare are involved, the Administrator need not wait as evidence continues to accumulate.

The Administrator recognizes that the context for this action is unique. **There is a very large and comprehensive base of scientific information that has been developed over many years through a global consensus process** involving numerous scientists from many countries and representing many disciplines. She also recognizes that there are varying degrees of uncertainty across many of these scientific issues. It is in this context that she is exercising her judgment and applying the statutory framework. Further discussion of the language in section 202(a) and its legislative history is provided below, to explain more fully the basis for this interpretation.

...2. Origin of the Current Statutory Language

When Congress revised section 202(a) and other provisions of the CAA as part of the 1977 amendments to the CAA, it was responding to an opinion issued by the D.C. Circuit regarding the pre-1977 version of section 211(c) of the Act. The legislative history of those amendments, particularly the report by the House Committee on Interstate and Foreign Commerce, demonstrate that EPA’s interpretation is fully consistent with Congress’ intention in crafting this a provision See H.R. Rep. 95–294 (1977), as reprinted in 4 A Legislative History of the Clean Air Act Amendments of 1977 (1978) at 2465 (hereinafter “LH”).

a. ***Ethyl Corp. v. EPA***

In revising the statutory language, Congress relied heavily on the en banc decision in *Ethyl Corp. v. EPA*, which reversed a 3-judge panel opinion

regarding an EPA rule restricting the content of lead in leaded gasoline.⁶ After reviewing the relevant facts and law, the full court evaluated the statutory language at issue to see what level of “certainty [was] required by the Clean Air Act before EPA may act.” *Id.* at 7. The petitioners argued that the statutory language “will endanger” required proof of actual harm, and that the actual harm had to come from emissions from the fuels in and of themselves. *Id.* at 12, 29. **The en banc court rejected this approach, finding that the term “endanger” allowed the Administrator to act when harm is threatened, and did not require proof of actual harm. *Id.* at 13.** “A statute allowing for regulation in the face of danger is, necessarily, a precautionary statute.” *Id.* Optimally, the court held, regulatory action would not only precede, but prevent, a perceived threat. *Id.*

The court also rejected petitioner’s argument that any threatened harm must be “probable” before regulation was authorized. Specifically, the court recognized that danger “is set not by a fixed probability of harm, but rather is composed of reciprocal elements of risk and harm, or probability and severity.” *Id.* at 18. Next, the court held that EPA’s evaluation of risk is necessarily an exercise of judgment, and that the statute did not require a factual finding. *Id.* at 24. Thus, ultimately, the Administrator must “act, in part on ‘factual issues,’ but largely ‘on choices of policy, on an assessment of risks, [and] on predictions dealing with matters on the frontiers of scientific knowledge * * * .’” *Id.* at 29 (citations omitted). Finally, the en banc court agreed with EPA that even without the language in section 202(a) regarding “cause or contribute to,” it was appropriate for EPA to consider the cumulative impact of lead from numerous sources, not just the fuels being regulated under section 211(c). *Id.* at 29–31.

b. The 1977 Clean Air Act Amendments

The dissent in the original *Ethyl Corp.* decision and the en banc opinion were of “critical importance” to the House Committee which proposed the revisions to the endangerment language in the 1977 amendments to the CAA. H.R. Rep. 95–294 at 48, 4 LH at 2515. In particular, the Committee believed the *Ethyl Corp.* decision posed several “crucial policy questions” regarding the protection of public health and welfare.” *Id.* 7 The Committee addressed those questions with the language that now appears in section 202(a) and several other CAA provisions— “emission of any air pollutant * * * , which in [the Administrator’s] judgment cause, or contribute to, air pollution **which may reasonably be anticipated to endanger public health or welfare.”**

The legislative history clearly indicates that the Committee intended the language to serve several purposes consistent with the en banc decision in *Ethyl Corp.* In particular, the language (1) emphasizes the preventive or precautionary nature of the CAA 8; (2) authorizes the Administrator to

reasonably project into the future and weigh risks; (3) assures the consideration of the cumulative impact of all sources; (4) instructs that the health of susceptible individuals, as well as healthy adults, should be part of the analysis; and (5) **indicates an awareness of the uncertainties and limitations in information available to the Administrator.** H.R. Rep. 95–294 at 49–50, 4 LH at 2516–17.9

As noted above, the phrase “in [her] judgment” calls for the Administrator to make a comparative assessment of risks and projections of future possibilities, consider uncertainties, and extrapolate from limited data. Thus, the Administrator must balance the likelihood of effects with the severity of the effects in reaching her judgment.

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The Committee emphasized that “judgment” is different from a factual “finding.” 10 The Administrator may make projections, assessments and estimates that are reasonable, as compared to a ““crystal ball’ inquiry.”

Moreover, procedural safeguards apply to the exercise of judgment, and final decisions are subject to judicial review. Also, the phrase “in [her] judgment” modifies both the phrases “cause and contribute” and “may reasonably be anticipated,” as discussed below. H.R. Rep. 95–294 at 50–51, 4 LH at 2517–18. **As the Committee further explained, the phrase “may reasonably be anticipated” points the Administrator in the direction of assessing current and future risks rather than waiting for proof of actual harm. This phrase is also intended to instruct the Administrator to consider the limitations and difficulties inherent in information on public health and welfare. H.R. Rep. 95–294 at 51, 4 LH at 2518.11** Finally, the phrase “cause or contribute” ensures that all sources of the contaminant which contribute to air pollution are considered in the endangerment analysis (e.g., not a single source or category of sources). It is also intended to require the Administrator to consider all sources of exposure to a pollutant (for example, food, water, and air) when determining risk. Id.

<http://www.gpo.gov/fdsys/pkg/FR-2009-12-15/pdf/E9-29537.pdf>

Part V

Environmental Protection Agency 40 CFR Chapter I Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule

74 FR 66496 (Dec. 15, 2009)

74 FR 66505-06

II. Legal Framework for This Action

As discussed in the Proposed Findings, two statutory provisions of the CAA govern the Administrator's Findings. Section 202(a) of the CAA sets forth a two-part test for regulatory action under that provision: Endangerment and cause or contribute. Section 302 of the CAA contains definitions of the terms "air pollutant" and "effects on welfare". Below is a brief discussion of these statutory provisions and how they govern the Administrator's decision, as well as a summary of significant legal comments and EPA's responses to them.

A. Section 202(a) of the CAA—

Endangerment and Cause or Contribute

1. The Statutory Framework

Section 202(a)(1) of the CAA states that: The Administrator shall by regulation prescribe (and from time to time revise) standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in [her] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Based on the text of CAA section 202(a) and its legislative history, the Administrator interprets the two-part test as follows. Further discussion of this two-part test can be found in Section II of the preamble for the Proposed Findings.

First, the Administrator is required to protect public health and welfare, but she is not asked to wait until harm has occurred. EPA must be ready to take regulatory action to prevent harm before it occurs. **Section 202(a)(1) requires the Administrator to "anticipate" "danger" to public health or welfare. The Administrator is thus to consider both current and future risks.**

Second, the Administrator is to exercise judgment by weighing risks, assessing potential harms, and making reasonable projections of future trends and possibilities. It follows that when exercising her judgment the Administrator balances the likelihood and severity of effects. This balance involves a sliding scale; on one end the severity of the effects may be of great concern, but the likelihood low, while on the other end the severity may be less, but the likelihood high. Under either scenario, the Administrator is permitted to find endangerment. **If the harm would be catastrophic, the Administrator is permitted to find endangerment even if the likelihood is small.** Because scientific knowledge is constantly evolving, **the Administrator may be called upon to make decisions while recognizing the uncertainties and limitations of the data or**

information available, as risks to public health or welfare may involve the frontiers of scientific or medical knowledge. At the same time, the Administrator must exercise reasoned decision making, and avoid speculative inquiries.

Third, as discussed further below, **the Administrator is to consider the cumulative impact of sources of a pollutant in assessing the risks from air pollution**, and is not to look only at the risks attributable to a single source or class of sources.

Fourth, **the Administrator is to consider the risks to all parts of our population, including those who are at greater risk for reasons such as increased susceptibility to adverse health effects**. If vulnerable subpopulations are especially at risk, the Administrator is entitled to take that point into account in deciding the question of endangerment. Here too, both likelihood and severity of adverse effects are relevant, including catastrophic scenarios and their probabilities as well as the less severe effects. As explained below, vulnerable subpopulations face serious health risks as a result of climate change.

In addition, by instructing the Administrator to consider whether emissions of an air pollutant cause or contribute to air pollution, **the statute is clear that she need not find that emissions from any one sector or group of sources are the sole or even the major part of an air pollution problem. The use of the term “contribute” clearly indicates a lower threshold than the sole or major cause.** Moreover, the statutory language in CAA section 202(a) does not contain a modifier on its use of the term contribute. Unlike other CAA provisions, it does not require “significant” contribution. See, e.g., CAA sections 111(b); 213(a)(2), (4). To be sure, any finding of a “contribution” requires some threshold to be met; a truly trivial or de minimis “contribution” might not count as such. The Administrator therefore has ample discretion in exercising her reasonable judgment in determining whether, under the circumstances presented, the cause or contribute criterion has been met. Congress made it clear that the Administrator is to exercise her judgment in determining contribution, and authorized regulatory controls to address air pollution even if the air pollution problem results from a wide variety of sources. While the endangerment test looks at the entire air pollution problem and the risks it poses, the cause or contribute test is designed to authorize EPA to identify and then address what may well be many different sectors or groups of sources that are each part of—and thus contributing to—the problem.

This framework recognizes that regulatory agencies such as **EPA must be able to deal with the reality that “[m]an’s ability to alter his environment has developed far more rapidly than his ability to foresee with certainty the effects of his alterations.”** See *Ethyl Corp. v. EPA*, 541 F.2d 1, 6 (DC Cir.), cert. denied 426 U.S. 941 (1976). Both “the Clean Air Act ‘and common sense * * * demand regulatory action to prevent harm, even if the regulator is less than certain that harm is otherwise inevitable.’ ” See *Massachusetts v. EPA*, 549 U.S. at 506, n.7 (citing *Ethyl Corp.*). The Administrator recognizes that the context for this action is unique. There is a very large and comprehensive base of **scientific information that has**

been developed over many years through a global consensus process involving numerous scientists from many countries and representing many disciplines. She also recognizes that there are varying degrees of uncertainty across many of these scientific issues. It is in this context that she is exercising her judgment and applying the statutory framework. **As discussed in the Proposed Findings, this interpretation is based on and supported by the language in CAA section 202(a), its legislative history and case law.**

2. Summary of Response to Key Legal Comments on the Interpretation of the CAA Section 202(a) Endangerment and Cause or Contribute Test

EPA received numerous comments regarding the interpretation of CAA section 202(a) set forth in the Proposed Findings. Below is a brief discussion of some of the key adverse legal comments and EPA's responses. Other key legal comments and EPA's responses are provided in later sections discussing the Administrator's findings. Additional and more detailed summaries and responses can be found in the Response to Comments document. As noted in the Response to Comments document, EPA also received comments supporting its legal interpretations.

a. The Administrator Properly Interpreted the Precautionary and Preventive Nature of the Statutory Language

Various commenters argue either that the endangerment test under CAA section 202(a) is not precautionary and preventive in nature, or that EPA's interpretation and application is so extreme that it is contrary to **what Congress intended in 1977**, and effectively guarantees an affirmative endangerment finding. Commenters also argue that the endangerment test improperly shifts the burdens to the opponents of an endangerment finding and is tantamount to assuming the air pollution is harmful unless it is shown to be safe.

EPA rejects the argument that the endangerment test in CAA section 202(a) is not precautionary or preventive **in nature**. As discussed in more detail in the proposal, Congress relied heavily on the en banc decision in *Ethyl* when it revised section 202(a) and other CAA provisions to adopt the current language on endangerment and contribution. 74 FR 18886, 18891–2. **The *Ethyl* court could not have been clearer on the precautionary nature of a criteria based on endangerment.** The court rejected the argument that EPA had to find actual harm was occurring before it could make the required endangerment finding. The court stated that:

The Precautionary Nature of “Will Endanger.” Simply as a matter of plain meaning, we have difficulty crediting petitioners' reading of the “will endanger” standard. The meaning of “endanger” is not disputed. Case law and dictionary definition agree that endanger means something less than actual harm. When one is endangered, harm is threatened; no actual injury need ever occur. Thus, for example, a town may be “endangered” by a threatening

plague or hurricane and yet emerge from the danger completely unscathed. A statute allowing for regulation in the face of danger is, necessarily, a precautionary statute. **Regulatory action may be taken before the threatened harm occurs; indeed, the very existence of such precautionary legislation would seem to demand that regulatory action precede, and, optimally, prevent, the perceived threat. As should be apparent, the “will endanger” language of Section 211(c)(1)(A) makes it such a precautionary statute.** *Ethyl* at 13 (footnotes omitted).

Similarly, the court stated that “[i]n sum, based on the plain meaning of the statute, the juxtaposition of CAA section 211 with CAA sections 108 and 202, and the *Reserve Mining* precedent, we conclude that the “will endanger” standard is precautionary in nature and does not require proof of actual harm before regulation is appropriate.” *Ethyl* at 17. **It is this authority to act before harm has occurred that makes it a preventive, precautionary provision.**

It is important to note that this statement was in the context of rejecting an argument that EPA had to prove actual harm before it could adopt fuel control regulations under then CAA section 211(c)(1). **The court likewise rejected the argument that EPA had to show that such harm was “probable.”**

74 FR 66507

The court made it clear that determining endangerment entails judgments involving both the risk or likelihood of harm and the severity of the harm if it were to occur. Nowhere did the court indicate that the burden was on the opponents of an endangerment finding to show that there was no endangerment. The opinion focuses on describing the burden the statute places on EPA, rejecting *Ethyl*’s arguments of a burden to show actual or probable harm.

Congress intentionally adopted a precautionary and preventive approach. It stated that the purpose of the 1977 amendments was to “emphasize the preventive or precautionary nature of the act, i.e., to assure that regulatory action can effectively prevent harm before it occurs; to emphasize the predominate value of protection to public health.”⁶ Congress also stated that it

authorized the Administrator to weigh risks and make projections of future trends, a “middle road between those who would impose a nearly impossible standard of proof on the Administrator before he may move to protect public health and those who would shift the burden

of proof for all pollutants to make the pollutant source prove the safety of its emissions as a condition of operation.” Leg. His. At 2516.

Thus, EPA rejects commenters’ arguments. **Congress intended this provision to be preventive and precautionary in nature, however it did not shift the burden of proof to opponents of an endangerment finding to show safety or no endangerment.** Moreover, as is demonstrated in the following, EPA has not shifted the burden of proof in the final endangerment finding, but rather is weighing the likelihood and severity of harms to arrive at the final finding. **EPA has not applied an exaggerated or dramatically expanded precautionary principle, and instead has exercised judgment by weighing and balancing the factors that are relevant under this provision.**

6 The Supreme Court recognized that the current language in section 202(a), adopted in 1977, is “more protective” than the 1970 version that was similar to the section 211 language before the DC Circuit in *Ethyl. Massachusetts v. EPA*, 549 U.S. at 506, fn 7.

74 FR 66508-09

c. The Administrator Does Not Need To Find There Is Significant Risk of Harm

Commenters argue that Congress established a minimum requirement that there be a “significant risk of harm” to find endangerment. They contend that this requirement stemmed from the Ethyl case, and that Congress adopted this view. According to the commenters, the risk is the function of two variables: the nature of the hazard at issue and the likelihood of its occurrence. Commenters argue that Congress imposed a requirement that this balance demonstrate a “significant risk of harm” to strike a balance between the precautionary nature of the CAA and the burdensome economic and societal consequences of regulation.

There are two basic problems with the commenters’ arguments. First, commenters equate “significant risk of harm” as the overall test for endangerment, however **the Ethyl case and the legislative history treat the risk of harm as only one of the two components that are to be considered in determining endangerment.—, The two components are the likelihood or risk of a harm occurring, and the severity of harm if it were to occur.** Second, commenters equate it to a minimum statutory requirement. However, while the court in the *Ethyl* case made it clear that the facts in that case

met the then applicable endangerment criteria, it also clearly said it was not determining what other facts or circumstances might amount to endangerment, including cases where the likelihood of a harm occurring was less than a significant risk of the harm.

In the EPA rulemaking that led to the *Ethyl* case, EPA stated that the requirement to reduce lead in gasoline “is based on the finding that lead particle emissions from motor vehicles present a significant risk of harm to the health of urban populations, particularly to the health of city children” (38 FR 33734, December 6, 1973). **The court in *Ethyl* supported EPA’s determination, and addressed a variety of issues. First, it determined that the “will endanger” criteria of then CAA section 211(c) was intended to be precautionary in nature. It rejected arguments that EPA had to show proof of actual harm, or probable harm. *Ethyl*, 541 F.2d at 13–20.** It was in this context, evaluating petitioner’s arguments on whether the likelihood of a harm occurring had to rise to the level of actual or probable harm, that the court approved of EPA’s view that a significant risk of harm could satisfy the statutory criteria. **The precautionary nature of the provision meant that EPA did not need to show that either harm was actually occurring or was probable. Instead, the court made it clear that the concept of endangerment is “composed of reciprocal elements of risk and harm,” *Ethyl* at 18.** This means “the public health may properly be found endangered both by a lesser risk of a greater harm and by a greater risk of lesser harm. **Danger depends upon the relation between the risk and harm presented by each case, and cannot legitimately be pegged to ‘probable’ harm, regardless of whether that harm be great or small.**” The *Ethyl* court pointed to the decision by the 8th Circuit in *Reserve Mining Co. v. EPA*, 514 F.2d 492 (8th Cir, 1975), which interpreted similar language under the Federal Water Pollution Control Act, where the 8th Circuit upheld an endangerment finding in a case involving “reasonable medical concern,” or a “potential” showing of harm. **This was further evidence that a minimum “probable” likelihood of harm was not required.**

The *Ethyl* court made it clear that there was no specific magnitude of risk of harm occurring that was required. “Reserve Mining convincingly demonstrates that the magnitude of risk sufficient to justify regulation is inversely proportional to the harm to be avoided.” *Ethyl* at 19. This means there is no minimum requirement that the magnitude of risk be “significant” or another specific level of likelihood of occurrence. You need to evaluate the risk of harm in the context of the severity of the harm if it were to occur. In the case before it, the *Ethyl* court noted that “the harm caused by lead poisoning is severe.” Even with harm as severe as lead poisoning, EPA did not rely on “potential” risk or a “reasonable medical concern.” Instead, EPA found that there was a significant risk of this harm to health. This finding of a significant risk was less than the level of “probable” harm called for by the petitioner Ethyl Corporation but was “considerably more certain than the risk that justified regulation in *Reserve Mining* of a comparably ‘fright-laden’ harm.” *Ethyl* at 19–20. The *Ethyl* court concluded that this combination of risk

(likelihood of harm) and severity of harm was sufficient under CAA section 211(c). “Thus we conclude that however far the parameters of risk and harm inherent in the ‘will endanger’ standard might reach in an appropriate case, they certainly present a ‘danger’ that can be regulated when the harm to be avoided is widespread lead poisoning and the risk of that occurrence is ‘significant’.” *Ethyl* at 20.

Thus, the court made it clear that the endangerment criteria was intended to be precautionary in nature, that the risk of harm was one of the elements to consider in determining endangerment, and that the risk of harm needed to be considered in the context of the severity of the potential harm. It also concluded that a significant risk of harm coupled with an appropriate severity of the potential harm would satisfy the statutory criteria, and in the case before it the Administrator was clearly authorized to determine endangerment where there was a significant risk of harm that was coupled with a severe harm such as lead poisoning. **Importantly, the court also made it clear that it was not determining a minimum threshold that always had to be met. Instead, it emphasized that the risk of harm and severity of the potential harm had to be evaluated on a case by case basis.** The court specifically said it was not determining “however far the parameters of risk and harm * * * might reach in an appropriate case.” *Ethyl* at 20. Also see *Ethyl* fn 17 at 13. The court recognized that this balancing of risk and harm “must be confined to reasonable limits” and even absolute certainty of a de minimis harm might not justify government action. However, “whether a particular combination of slight risk and great harm, or great risk and slight harm constitutes a danger must depend on the facts of each case.” *Ethyl* at fn 32 at 18.7

In some cases, commenters confuse matters by switching the terminology, and instead refer to effects that “significantly harm” the public health or welfare. **As with the reference to “significant risk of harm,” commenters fail to recognize that there are two different aspects that must be considered, risk of harm and severity of harm, and neither of these aspects has a requirement that there be a finding of “significance.”** The DC Circuit in *Ethyl* makes clear that it is the combination of these two aspects that must be evaluated for purposes of endangerment, and there is no requirement of “significance” assigned to either of the two aspects that must instead be evaluated in combination. **Congress addressed concerns over burdensome economic and societal consequences in the various statutory provisions that provide the criteria for standard setting or other agency action if there is an affirmative endangerment finding.** Those statutory provisions, for example, make standard setting discretionary or specify how cost and other factors are to be taken into consideration in setting standards. **However, the issues of risk of harm and severity of harm if it were to occur are separate from the issues of the economic impacts of any resulting regulatory provisions** (see below).

As is clear in the prior summary of the endangerment findings and the more detailed discussion later, the breadth of the sectors of our society that are affected by climate change and the time

frames at issue mean there is a very wide range of risks and harms that need to be considered, from evidence of various harms occurring now to evidence of risks of future harms. The Administrator has determined that the body of scientific evidence compellingly supports her endangerment finding.