VIA U.S. MAIL AND ONLINE

January 22, 2014

California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium
1001 I Street
Sacramento, CA 95814

Re: Comments Concerning California's Section 110(a) Infrastructure State Implementation Plan (SIP) Submittal for 2008 Ozone and 2010 Sulfur Dioxide NAAQS

To Whom It May Concern:

On behalf of the Sierra Club, its over 143,000 members in California, and others who are adversely impacted by California's sources of ozone and sulfur dioxide ("SO_2") pollution, we submit the following comments on California's proposed Infrastructure State Implementation Plan ("SIP") addressing the requirements for the 2008 eight-hour ozone and 2010 one-hour sulfur dioxide National Ambient Air Quality Standards ("NAAQS"), required by sections 110(a)(1) and (2) of the Clean Air Act ("CAA" or "Act"). 42 U.S.C. § 7410(a)(1) & (2). We submit these comments and exhibits as notice that the submission fails to comply with the requirements of CAA sections 110(a)(1) and (2).[1]

The primary NAAQS define the levels of air quality that the EPA Administrator determines to be necessary to protect public health with an adequate margin of safety. *See* 42 U.S.C. § 7409(b)(1). In 2008, EPA revised the primary ozone standard to 75 parts per billion ("ppb") of the annual fourth-highest daily maximum eight-hour concentration averaged over 3 year. In 2010, EPA determined that a primary SO_2 NAAQS of 75 ppb from the 99th percentile of one-hour daily maximum concentrations averaged over 3 years is necessary to protect public

[1] All exhibits and a copy of these comments can be found at https://app.box.com/s/rq3e8rzy6gwqpx7iogks

health. These revised standards if properly implemented will result in improvements in public health (including preventing premature deaths) and the environment.

When EPA revised the ozone standard, EPA recognized it was providing increased protection for public health, especially for children, the elderly, and asthmatics. This standard is meant to protect "against an array of O_3-related adverse health effects that range from decreased lung function and increased respiratory symptoms to serious indicators of respiratory morbidity including emergency department visits and hospital admissions for respiratory causes, and possibly cardiovascular-related morbidity as well as total nonaccidental and cardiorespiratory mortality." *See* National Ambient Air Quality Standard for Ozone, 73 Fed. Reg. 16,436, 16,436 (Mar. 27, 2008). Further, increased ozone levels may contribute to premature death, especially in people with heart and lung disease. Ozone also damages vegetation and trees, including forests, parks, and crops. EPA estimates that the 2008 eight-hour ozone NAAQS has the potential to avoid 260 to 2,000 premature deaths annually as of 2020. The total benefits in ozone reduction from this standard are estimated to save $2 to $17 billion per year. EPA, FACT SHEET: FINAL REVISIONS TO THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE, at 1-3 (2008), *at* http://www.epa.gov/glo/pdfs/2008_03_factsheet.pdf. In fact, 2011 and 2012 ozone ambient monitoring data indicate that EPA's estimates of the health benefits from reducing ozone exposure may have been low.[2]

In 2010, EPA determined that a primary SO_2 NAAQS of 75 parts per billion ("ppb") is necessary to protect public health from the serious threats posed by short-term exposure to SO_2, including decreased lung function, increased respiratory symptoms such as chest tightness, wheezing, and shortness of breath, and other serious indicators of respiratory illness, especially in asthmatics, children, and the elderly. *See generally* Primary National Ambient Air Quality Standard for Sulfur Dioxide; Final Rule, 75 Fed. Reg. 35,520, 35,526-27 (June 20, 2010) [hereinafter "Final SO_2 NAAQS Rule"]. The health data relied upon by EPA in promulgating the new standard overwhelmingly indicates that increased asthma attacks and hospital visits are attributable to short-term concentrations of sulfur compounds in the air. *Id*.

California Environmental Protection Agency ("CalEPA") must properly implement the 2008 ozone and 2010 SO2 standard to prevent serious impairments and other adverse impacts caused by exposure to these pollutants and to protect public health.

[2] In 2012, much of the country experienced record high temperatures and very high ozone levels. However, the 2008 ozone NAAQS benefit analysis was based on 2008 ozone levels and thus did not consider the more accurate, higher ozone levels that were experienced in 2012. Current science indicates that temperatures experienced during 2012 will be common in the future due to climate change. If we do not reduce greenhouse emissions rapidly and substantially, the hottest summer of the last 20 years is expected to occur every other year, or even more frequently. *See, e.g.*, "Changes in Ecologically Critical Terrestrial Climate Conditions," Science, 2 Aug. 2013, Vol. 341, no. 6145, 486-492. Therefore, the benefit analysis likely underestimated the amount of ozone reductions the 2008 ozone NAAQS will require and consequently the benefit the standard will provide.

I. LEGAL BACKGROUND

The Clean Air Act creates a framework for the "development of cooperative Federal, State, regional, and local programs to prevent and control air pollution." 42 U.S.C. § 7401(a)(4). Pursuant to section 109(b)(1) of the Act, EPA has established primary NAAQS for six criteria air pollutants, "the attainment and maintenance of which . . . are requisite to protect the public health." *Id.* § 7409(b)(1). States have "primary responsibility" for assuring air quality within the state. *Id*. § 7407(a). Following promulgation of a NAAQS, the Act requires that a state shall "adopt and submit to the Administrator . . . a plan which provides for implementation, maintenance, and enforcement of such primary [NAAQS]." *Id.* § 7410(a)(1). For attainment and unclassifiable areas, section 110(a)(2)(A) requires that these plans (which EPA refers to as Infrastructure SIPs or "I-SIPs") "include enforceable emission limitations . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements" of the Clean Air Act, including the requirement to maintain the NAAQS. 42 U.S.C. §§ 7410(a)(2)(A), 7410(a)(1); *Conn. Fund for Env't, Inc. v. EPA*, 696 F.2d 169, 172 (2d Cir. 1982) (CAA requires that SIPs contain "measures necessary to ensure the attainment and maintenance of NAAQS"); *Mont. Sulphur & Chem. Co. v. EPA*, 666 F.3d 1174, 1180 (9th Cir. 2012) (*"*The Clean Air Act directs states to develop implementation plans—SIPs—that 'assure' attainment and maintenance of national ambient air quality standards ("NAAQS") through enforceable emission limitations.") (citing 42 U.S.C. §§ 7407(a), 7410(a)(2)(A)); Hall *v. EPA*, 273 F.3d 1146, 1153 (9th Cir. 2001) ("Each State must submit a [SIP] that specif[ies] the manner in which [NAAQS] will be achieved and maintained within each air quality control region in the State") (internal citations omitted); *see also* EPA, "Sulfur Dioxide Implementation—Programs and Requirements for Reducing Sulfur Dioxide," *available at* http://www.epa.gov/airquality/sulfurdioxide/implement.html.

EPA may approve an Infrastructure SIP only if it finds that the SIP meets a number of requirements identified in section 110(a)(2) of the Act. *See* 42 U.S.C. § 7410(a)(2)(A)-(M). The state bears the burden of demonstrating that its SIP submission satisfies the standards of section 110(a)(2). *Mich. Dept. of Envtl. Quality v. Browner*, 230 F.3d 181, 183, 185 (6th Cir. 2000) (affirming EPA's rejection of a SIP proposal where the state "failed to offer evidence that [the] proposed rules will not interfere with the attainment and maintenance of the NAAQS."). For a plan to be adequate, it "must demonstrate that the measures, rules, and regulations contained in it are adequate to provide for the timely attainment and maintenance of the national standard that it implements." 40 C.F.R. § 51.112(a)

A. The Plain Language and Legislative History of the Clean Air Act Require That Infrastructure SIPs Must Impose Emission Limits Adequate to Prevent NAAQS Exceedances in Areas Not Designated Nonattainment

The Clean Air Act, on its face, requires I-SIPs to be adequate to prevent exeedances of the NAAQS. As noted above, following promulgation of a NAAQS, a state must "adopt and submit to the Administrator . . . a plan which provides for implementation, maintenance, and enforcement of such [NAAQS]." 42 U.S.C. § 7410(a)(1). Pursuant to section 110(a)(2)(A), this I-SIP must "include *enforceable emission limitations* . . . as well as schedules and timetables for

compliance, as may be necessary or appropriate to meet the applicable requirements" of the Clean Air Act (which include the requirement to maintain compliance with the NAAQS). *Id.* § 7410(a)(2)(A) (emphasis added). As defined by the Act, the term "emission limitation" means "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this chapter." *Id.* § 7602(k). Thus, the plain language of section 110(a)(2)(A) requires that I-SIPs include enforceable emission limitations on sources sufficient to ensure maintenance of the NAAQS.

The legislative history of the Clean Air Act supports this interpretation. As the Senate Committee Report accompanying the 1970 Clean Air Act explained, the Act "would establish certain tools as potential parts of an implementation plan and *would require that emission requirements be established by each State for sources of air pollution agents or combinations of such agents in such region* and that these emission requirements be monitored and enforceable." Sen. Cmte. on Pub. Works Rpt. at 12 (Sept. 17, 1970) (emphasis added), attached hereto as Exhibit 1. This was reaffirmed in the subsequent Senate Conference Report, which stated that: "In order to implement the national ambient air quality standards, these [state implementation] plans *must provide for emission limitations on all services in the region covered by the plan*, together with schedules and timetables of compliance, systems for monitoring both ambient air and emissions from individual sources, and adequate enforcement authority." Sen. Conf. Rpt., 116 Cong. Rec. 42,381, 42,384 (Dec. 18, 1970) (emphasis added), attached hereto as Exhibit 2.[3]

B. EPA Regulations Implementing the Clean Air Act Require That Infrastructure SIPs Must Impose Emission Limits Adequate to Prohibit NAAQS Exceedances in Areas Not Designated Nonattainment

EPA regulations implementing section 110(a)(2) also require that I-SIPs must be adequate to prohibit exceedances of the NAAQS. Pursuant to these regulations, in order for a SIP to be approved by EPA, it "must demonstrate that the measures, rules, and regulations contained in it are adequate to provide for the timely attainment and maintenance of the national standard that it implements." 40 C.F.R. § 51.112(a). The regulation clearly states that all SIPs

[3] Although the language of current section 110(a)(2)(A) was originally found in section 110(a)(2)(B), the substance has remained true to the statements found in the Senate Committee Reports. There were only two substantive changes between 1970 and the present. First, the addition of former section 172(c)'s requirement that SIPs' emission limitations, schedules, and timetables be "enforceable." *See* Rpt. of the Senate Cmte. on Envt. and Pub. Works accompanying the Clean Air Act Amendments of 1989 at 20 (Dec. 20, 1989) (explaining that "Paragraph (1) of rewritten section 110(c) combines and streamlines existing section 110(a)(2)(b) and the enforceability requirements of section 172(c) of current law"), attached hereto as Exhibit 3; *see also* 42 U.S.C. § 7502(c) (section 172(c)) (requiring that a SIP revision submitted before July 1, 1982 pursuant to a demonstration under subsection (a)(2) "shall contain enforceable measures to assure attainment of the applicable standard not later than December 1, 1987"). Second, the clarification in the 1990 Clean Air Act Amendments that the "means[] or techniques" for meeting the requirements of the Act included "economic incentives such as fees, marketable permits, and auctions of emissions rights." 42 U.S.C § 7410(a)(2)(A).

must contain emission limits that adequately ensure the NAAQS is achieved. *See* 40 C.F.R. § 51.112(a). Although these regulations were developed before the Clean Air Act separated Infrastructure SIPs from nonattainment SIPs—a process that began with the 1977 amendments and was completed by the 1990 amendments—the regulations nonetheless apply to I-SIPs. EPA has not changed the regulation since 1990, and in the preamble to the final rule promulgating 40 C.F.R. § 51.112, EPA expressly identifies that its new regulations were *not* implementing Subpart D, the new nonattainment provisions of the Act. *See* Air Quality Implementation Plans; Restructuring SIP Preparation Regulations, 51 Fed. Reg. 40,656, 40,656 (Nov. 7, 1986) ("It is beyond the scope of th[is] rulemaking to address the provisions of Part D of the Act . . . ."). Consequently, 40 C.F.R. § 51.112 was intended to apply to I-SIPs. Thus, it is clear that I-SIPs must contain "measures, rules, and regulations" sufficient to ensure maintenance of the NAAQS.

C. Prior EPA Interpretations of the Act Require That Infrastructure SIPs Must Impose Emission Limits Adequate to Prohibit NAAQS Exceedances in Areas Not Designated Nonattainment

EPA has relied on section 110(a)(2)(A) and 40 C.F.R. § 51.112 on multiple occasions to reject Infrastructure SIPs that did not contain specific emissions limits sufficient to demonstrate attainment and maintenance of the NAAQS. For example, in March 2006, EPA disapproved Missouri's attempt to revise the sulfur dioxide emission limits in its I-SIP for two power plants because the new emission limits would not ensure maintenance of the short-term sulfur dioxide NAAQS. *See* Approval and Promulgation of Implementation Plans; State of Missouri, 71 Fed. Reg. 12,623, 12,624 (Mar. 13, 2006). In so doing, EPA explained that "Section 110(a)(2)(A) of the [Act] requires, in part, that the [state implementation] plan include emission limitations to meet the requirements of the Act, including the requirement in section 110(a)(1) that the plan must be adequate to attain and maintain ambient air quality standards." *Id*. EPA further explained that "40 CFR 51.112 requires that the plan demonstrate that rules contained in the SIP are adequate to attain the ambient air quality standards." *Id.* In the case of Missouri's proposed I-SIP, EPA expressed concern that the sulfur dioxide emission rates for the two power plants in question were "not protective of the short-term sulfur dioxide NAAQS", because while Missouri had lowered the emission rates for the facilities, it had dramatically increased the averaging times (from a 3-hour average to an annual average) without providing "a demonstration, as required by the [Clean Air Act] and EPA regulations, that the [sulfur dioxide national ambient air quality] standards, and particularly the three-hour and the twenty-four hour standards, can be protected by an annual emission limit." *Id.*

More recently, in December 2013, EPA rejected a revision to Indiana's sulfur dioxide SIP pursuant to 40 C.F.R. § 51.112, because Indiana failed to demonstrate that the SIP as revised was sufficient to ensure maintenance of the sulfur dioxide NAAQS. *See* Approval of Air Quality Implementation Plans; Indiana; Disapproval of State Implementation Plan Revision for ArcelorMittal Burns Harbor; Final Rule, 78 Fed. Reg. 78,720, 78,721 (Dec. 27, 2013). Indiana had submitted a request to EPA to revise its sulfur dioxide SIP for the ArcelorMittal Burns Harbor facility to remove the sulfur dioxide emission limit for the blast furnace flare at the facility. *Id.* In the proposed disapproval, EPA explained that "[u]nder 40 CFR 51.112(a), each SIP must demonstrate that the measures, rules, and regulations it contains are adequate to provide for the timely attainment and maintenance of the NAAQS." *See* Approval of Air Quality

Implementation Plans; Indiana; Disapproval of State Implementation Plan Revision for ArcelorMittal Burns Harbor; Proposed Rule, 78 Fed. Reg. 17,157, 17,158 (Mar. 20, 2013). Because Indiana did not demonstrate that the ArcelorMittal blast furnace gas flare's existing emission limit was "redundant, unnecessary, or that its removal would not result in or allow an increase in actual SO_2 emissions," and, consequently, that removal of the limit would not "affect the validity of the emission rates used in the existing attainment demonstration, thus undermining the SIP's ability to ensure protection of the SO_2 NAAQS," EPA rejected the proposed amendment. *Id.* at 17,159; *see also* 78 Fed. Reg. at 78,721.

Indeed, while in its recent Infrastructure SIP guidance EPA purported to postpone certain I-SIP start-up, shutdown, and malfunction (SSM) requirements, nowhere in that guidance does EPA discuss postponement of any other I-SIP requirement.[4] *See* U.S. EPA, Guidance on Infrastructure State Implementation Plan (SIP) Elements under Clean Air Act Section 110(a)(1) and 110(a)(2), at 19-20 (Sept. 13, 2013) [hereinafter "EPA I-SIP Guidance"]. This is simply a further indication that the CAA requires I-SIPs to include emission limits adequate to ensure attainment of the NAAQS and that the imposition of such limits may not be delayed.

D. Supreme and Appellate Court Opinions Hold That Infrastructure SIPs Must Impose Emission Limits Adequate to Prohibit NAAQS Exceedances in Areas Not Designated Nonattainment

Since the inception of the modern Clean Air Act in 1970, courts have interpreted the language presently found in section 110(a)(2)(A) to require that SIPs contain enforceable emission limits sufficient to prevent exceedances of the NAAQS. In *Train v. NRDC*, a seminal case on SIP approval requirements, the Supreme Court explained that:

> In complying with this requirement [that a SIP provide for attainment and maintenance of the NAAQS] a State's plan must include 'emission limitations,' which are regulations of the composition of substances emitted into the ambient air from such sources as power plants, service stations, and the like. They are the specific rules to which operators of pollution sources are subject, and which if enforced should result in ambient air which meets the national standards.

421 U.S. at 78; *see also id.* at 67 (citing language from then-current section 110(a)(2)(B) now found in section 110(a)(2)(A)).

Courts of appeals have echoed the same conclusion. For example, in *Pennsylvania Department of Environmental Resources v. EPA*, the Third Circuit stated that the Clean Air Act "directs the EPA to withhold approval from a state implementation plan if the 'maintenance of [the] standard' cannot be assured." 932 F.2d 269, 272 (3rd Cir. 1991).[5] The court observed that

[4] Sierra Club disagrees, moreover, with EPA's apparent postponement of those same SSM requirements; such postponement is unsupported by the CAA.

[5] The court was interpreting the 1977 version of the statute in which Subpart 1 of Part D had been added, *id.* at 271 n.1, but relied on the language of then-current section 110(a)(2)(B) (now found in section 110(a)(2)(A)). *Pennsylvania Department of Environmental Resources,* 32 F.2d at 272.

the "need to maintain the Clean Air Act standards once they are reached is well-recognized by the Courts." *Id.* Other courts have provided similar analyses. In *Mision Industrial, Inc. v. EPA*, for example, the First Circuit explained that, "[b]efore approving an air quality implementation plan or revision, the Administrator must determine that it 'includes emission limitations . . . and such other measures as may be necessary to insure attainment and maintenance of (the) primary or secondary standard . . . .'" 547 F.2d 123, 129 (1st Cir. 1976) (quoting former section 110(a)(2)(B)).

The 1990 Clean Air Act amendments do not alter this picture. Court decisions since the 1990 amendments have continued to hold that I-SIPs must have emission limits that maintain the NAAQS. In *Alaska Department of Environmental Conservation v. EPA*, the Supreme Court explained that an Infrastructure SIP under CAA section 110(a)(1) must be a "plan which provides for implementation, maintenance, and enforcement of [NAAQS]." 540 U.S. 461, 470 (2004) (quoting section 110(a)(1)). "While States have wide discretion in formulating their plans . . . SIPs must include certain measures Congress specified to assure that national ambient air quality standards are achieved." *Id.* (internal citations and quotations omitted). Thus, in order for EPA to approve, a SIP, it "must 'include enforceable emission limitations and other control measures, means, or techniques . . . as may be necessary or appropriate to meet the applicable [CAA] requirements.'" *Id.* (quoting 42 U.S.C. § 7410(a)(2)(A)).

The circuit courts have also been clear that section 110(a)(2)(A) from the post-1990 Clean Air Act requires enforceable emission limits in I-SIPs. For example, as noted above, the Ninth Circuit recently affirmed that "[t]he Clean Air Act directs states to develop implementation plans—SIPs—that 'assure' attainment and maintenance of national ambient air quality standards ('NAAQS') *through enforceable emission limitations*." *Mont. Sulphur & Chem. Co.*, 666 F.3d at 1180 (citing 42 U.S.C. §§ 7407(a), 7410(a)(2)(A)) (emphasis added). And the Sixth Circuit has explained that "EPA's deference to a state is conditioned on the state's submission of a plan 'which satisfies the standards of § 110(a)(2)' and which includes emission limitations that result in compliance with the NAAQS." *Mich. Dept. of Envtl Quality*, 230 F.3d at 185 (*quoting Train*, 421 U.S. at 79).

Additionally, in *Hall v. EPA*, the Ninth Circuit held that EPA had not fulfilled its responsibility under another provision—section 110(l)[6]—to evaluate whether a revised air quality plan will achieve the pollution reductions required under the Act. 273 F.3d at 1152. In *Hall*, EPA approved a revision to an air quality plan solely on the basis that the revisions did not relax the existing SIP, rather than "measur[ing] the existing level of pollution, compar[ing] it with the national standards, and determin[ing] the effect on this comparison of specified emission modifications." *Id*. at 1157-58 (*quoting Train*, 421 U.S. at 93). EPA claimed a statutory equivalence between non-relaxation of rules approved in 1981 and non-interference with current attainment requirements. *Id.* at 1155. The court rejected EPA's application of the "no relaxation" rule, finding it inconsistent with the Act because it set an improper baseline that failed to take into consideration the 1990 amendments, which set new deadlines for attainment

[6] Section 110(l) provides, in relevant part, that "[t]he Administrator shall not approve a revision of a [state implementation] plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress . . ., or any other applicable requirement of this chapter." 42 U.S.C. § 7410(l).

and established other new requirements for incremental progress towards attainment. *Id*. at 1160-61. Those current attainment requirements were the baseline from which EPA should have measured "non-interference." *Id.* EPA's analysis was required to reflect consideration of the prospects of meeting current attainment requirements under a revised air quality plan. *Id*. Based on the Ninth Circuit's analysis, just as a plan revision must not interfere with attainment of the NAAQS under section 110(l), an I-SIP must likewise include enforceable limits sufficient to ensure the initial plan provides for maintenance of the NAAQS under 110(a)(2)(A).

II. THE CALIFORNIA INFRASTRUCTURE SIP IMPERMISSIBLY FAILS TO ADEQUATELY COMPLY WITH CLEAN AIR ACT SECTION 110(a)(2)(A) AND TO ENSURE ATTAINMENT AND MAINTENANCE OF THE 2008 OZONE AND 2010 SO_2 NAAQS.

California's Infrastructure SIP submission fails to include measures that sufficiently demonstrate that it will comply with CAA section 110(a)(2)(A), and therefore it cannot ensure the proper implementation, maintenance, and enforcement of the 2008 ozone and 2010 SO_2 NAAQS as required. As discussed, under section 110(a)(2)(A), the I-SIP must "include *enforceable emission limitations* . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements" of the Clean Air Act (which include the requirement to maintain compliance with the NAAQS). Yet, California's submission does not reference emission limitations or other required measures that ensure compliance. *See generally* CalEPA, California Infrastructure SIP, [hereinafter "I-SIP Submission"].

The regulations that CalEPA cites are insufficient to ensure compliance with the 2008 ozone and 2010 SO_2 NAAQS. California's regulations contain exemptions and variances that undermine its permitting and enforcement mechanisms, thus failing to ensure the attainment and maintenance of the NAAQS. For example, many of the thirty-five air districts with the primary authority to control emissions from stationary sources have exemptions for start up, shutdown, and malfunctions. *See e.g*., Amador County APCD, Rule 404: Upset Conditions, Breakdown or Scheduled Maintenance; El Dorado County APCD - Lake Tahoe Air Basin Rule 404: Upset Conditions, Breakdown or Scheduled Maintenance; El Dorado APCD - Mountain Counties Air Basin, Rule 516 Upset and Breakdown Conditions; and Great Basin APCD: Rule 403: Breakdown. Regulations that allow for exceedances of emission limits weaken the permitting program and do not guarantee that the NAAQS will be attained and maintained. These regulations and possibly others not listed in these comments allow for exceptions that frustrate the purpose of the I-SIP and prevent California from ensuring attainment and maintenance of the NAAQS.

CalEPA specifically fails to demonstrate that 2008 ozone NAAQS will be attained and maintained, because CalEPA references rules that provide little benefit to areas not designated nonattainment for 2008 ozone NAAQS. For example, CalEPA cites to a regulation meant to reduce ozone levels that is only applicable to areas designated nonattainment for ozone NAAQS. *See* I-SIP Submission at 7. The Portland Cement Kilns Rule 1161 from Mojave Desert Air Quality Management District ("AQMD"), *id.,* addresses nitrogen oxides, an ozone precursor, in ozone nonattainment areas, but it has little benefit to the ozone attainment areas the I-SIP is meant to protect. Further, even this regulation has an exception for start-up and shut down. *See* Mojave Desert AQMD, Rule 1161: Portland

Cement Kilns. California must make an adequate showing that areas not designated nonattainment will attain and maintain the NAAQS.

In addition to these regulations that allow for exceptions, California's SIP contains emission limits that provide little assurance that the 2010 SO_2 standard will be met. For instance, in the Bay Area AQMD, where the three largest stationary sources of SO_2 are located, *see* 2011 NEI CA SO2 17 Jan 2014, (based on 2011 National Emissions Inventory), attached hereto as Exhibit 4, *see also* The National Emissions Inventory, http://www.epa.gov/ttn/chief/net/2011inventory.html,[7] the sulfur dioxide emission limit is 0.5 ppm continuously for three consecutive minutes, 0.25 averaged over an hour, or 0.05 ppm averaged over twenty-four hours. These limits are not sufficient to meet the 0.075 ppm one-hour SO_2 standard. Bay Area AQMD, Regulation Inorganic Gaseous Pollutants: Sulfur Dioxide § 9-1-301. Additionally, in Butte County, a single source's emission limit for sulfur dioxide is set at 2000 ppm or 0.2 percent by volume. Again, the 2010 SO_2 standard is set at 0.075 ppm. *See* Butte County APCD Rule 231: Sulfur Oxides Emission Standards. A similar standard is found in Calaveras County APCD, Rule 210: Sulfur Emissions, which limits a single source's emissions to 0.2 percent by volume. *See also* El Dorado County APCD – El Dorado County, Rule 210: Sulfur Emissions (also limits emissions by 0.2 percent volume). These limits do show that the SO_2 NAAQS will be met.

All of these regulations contain the same fatal flaw: not ensuring that the standards actually are met by addressing large sources. California must revise its SIP to include enforceable emission limits that address any exceedances of the NAAQS.

III. CALIFORNIA'S INFRASTRUCTRE SIP IMPERMISSIBLY ALLOWS EXEEDANCES OF THE 2008 EIGHT-HOUR OZONE STANDARD, AS DEMONSTRATED BY EPA'S OWN OZONE MONITOR DATA.

California's proposed SIP fails to impose necessary restrictions on ozone precursor sources sufficient to ensure the attainment and maintenance of the 2008 ozone NAAQS in areas designated attainment, as shown by the EPA's own ozone data. Ozone monitor data in Kern, Riverside, San Bernardino, San Luis Obsipo, and Tehema counties may show 2008 ozone NAAQS exceedances in areas designated attainment.[8]

These monitors reveal that ozone concentrations in these areas exceed the 2008 ozone NAAQS, and thus ozone concentrations have been found to be above the level deemed safe for public health. *See* California 2010-13 Monitor Values (based on EPA AirData), attached hereto as Exhibit 5; *see also* EPA AirData: Monitor Values Report, http://www.epa.gov/airdata/ad_rep_mon.html. If areas where these monitors are located are not designated nonattainment, then these exceedances show that the California Infrastructure SIP

[7] The Valero Refining Company in Solano county and Shell Martinez Refinery and Phillips 66 Carbon Plant in Contra Costa are located in the Bay Area AQMD.

[8] Sierra Club recognizes that all of these counties are listed as partially nonattainment. However, Sierra Club could not determine from addresses of monitors, maps of nonattainment areas, and descriptions of nonattainment boundaries whether the monitors were in areas already designated nonattainment or areas designated attainment or unclassifiable. Sierra Club asks that CalEPA to please clarify whether the monitors are in areas designated nonattainment or attainment or unclassifiable.

lacks adequate emission limits to attain and maintain the 2008 ozone NAAQS. California must clarify the location of these monitors and address ozone levels when any monitor shows ozone exceedances in areas not designated nonattainment in its Infrastructure SIP.

The 2008 eight-hour ozone monitor values are listed below for the violating counties from 2010 to 2012.

Table 1: Fourth Highest Monitor Values of Counties with Three-Year Averages from 2010 to 2012 over 0.075 ppm[9]

County (Monitor)	2010	2011	2012	Average
Kern (#60290007)	0.099	0.092	0.088	0.093
Riverside (#60650008)	0.078	0.076	0.075	0.076
Riverside (# 60650012)	0.099	0.1	0.095	0.098
Riverside (#60651004)	0.076	0.075	0.078	0.076
Riverside (#60651010)	0.076	0.076	0.08	0.77
Riverside (#60652002)	0.084	0.085	0.085	0.084
Riverside (#60655001)	0.092	0.092	0.094	0.092
Riverside (#60658001)	0.092	0.106	0.096	0.098
San Bernardino (#60711001)	0.077	0.078	0.08	0.078
San Luis Obsipo (#60798005)	0.083	0.075	0.081	0.079
San Luis Obsipo (#60798006)	0.077	0.077	0.75	0.076
Tehama (#61030004)	0.076	0.075	0.077	0.076

See Exhibit 5.

[9] Using data from 2011 to 2013, the monitors, listed above, also show exceedances: Kern (#60290007), Riverside (#60650008), Riverside (# 60650012), Riverside (#60651010), Riverside (#60652002), Riverside (#60655001), Riverside (#60658001), and San Luis Obsipo (#60798005). *See* Exhibit 5.

IV. THE CALIFORNIA INFRASTRUCTURE SIP IMPERMISSIBLY FAILS TO INCLUDE ENFORCEABLE ONE-HOUR SO_2 EMISSION LIMITATIONS TO ENSURE ATTAINMENT AND MAINTENANCE OF THE NAAQS.

Even though the 2010 SO_2 NAAQS requirements impose a new, more protective standard for ambient air, California's proposed I-SIP fails to include restrictions on major SO_2 sources to ensure that areas not designated nonattainment will attain and maintain the new one-hour SO_2 NAAQS. California fails to include adequate enforceable emission limitations for sources of SO_2 sufficient to ensure attainment and maintenance of the 2010 SO_2 NAAQS.[10] For example, there are several large sources of SO_2 in California: Valero Refining Company in Benicia, Shell Martinez Refinery in Martinez, and Phillips 66 Carbon Plant in Rodeo. *See* Exhibit 4. These three sources combined emit more SO_2 than the next thirteen SO_2 emission sources combined in California. *Id*. Yet, nothing in the I-SIP sets short-term emission limits for these or for other large sources of SO_2. Emission limits are especially important for meeting the one-hour SO_2 NAAQS, given the "strong source-oriented nature of SO2 ambient impacts." Final SO_2 NAAQS Rule, 75 Fed. Reg. at 35,570. In order to comply with section 110(a)(2)(A), the California proposed I-SIP must be amended to ensure these sources cannot cause exceedances of the 2010 SO_2 NAAQS. CalEPA must promulgate enforceable emission limits with one-hour averaging time into its I-SIP to achieve and maintain the one-hour SO_2 NAAQS. These emission limits must apply at all times including during periods of start-up, shutdown, and malfunction.

A. California must include enforceable SO_2 emission limits with a one-hour averaging period that apply at all times

As discussed, the emission limitations necessary to comply with section 110(a)(2)(A) mean "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this chapter." 42 U.S.C. at § 7602(k). Therefore, the emission limitations must also contain proper averaging times—in this instance, a one-hour averaging period.

EPA has stated that one-hour averaging times are necessary to comply with the one-hour SO_2 NAAQS. In 2011, EPA disagreed with the Kansas Department of Health and Environment's issuance of a PSD permit that contained a 30-day averaging time rather than a one-hour averaging period. *See* Letter from Karl Brooks, Regional Administrator, EPA Region 7

[10] As outlined by EPA in the Final SO_2 NAAQS Rule, 75 Fed. Reg. at 35,551, air dispersion modeling is the best method for evaluating the short-term impacts of large SO_2 sources. EPA has acknowledged that, for the one-hour SO_2 NAAQS, modeling is the most accurate means of determining attainment with the NAAQS. Final SO_2 NAAQS Rule at 35,551, 35,570. Accordingly, California must include source-specific SO_2 emission limits in the SIP that, when modeled, show no exceedances of the NAAQS.

to Dr. Robert Moser, Secretary, Kansas Department of Health and Environment (Feb. 3, 2011), attached hereto as Exhibit 6. EPA explained

> [i]t is well known that there can be considerable variability in actual 1-hour emission rates. Therefore, to ensure protection of the 1-hour . . . SO_2 NAAQS . . . the permit needs to contain . . . SO_2 1-hour average emission limits for both new and existing steam generating units. To ensure the source does not cause or contribute to air pollution in violation of the NAAQS, the emission limits should be consistent with the modeling rates and have the same averaging period, i.e. in this case maximum hourly emission limits consistent with the 1-hour NAAQS.

Id. at 2. Although this determination was made in the PSD permitting context, there is no functional difference between this review process by EPA and the I-SIP approval, as PSD permits reflect the provisions of a state's SIP including federal standards and requirements. Similarly, in its disapproval of Missouri's SIP in 2006, EPA determined that the emission rates in the SIP were "not protective of the short-term sulfur dioxide NAAQS" because they were based on an annual average. *See* Approval and Promulgation of Implementation Plans; State of Missouri, 71 Fed. Reg. 12,623, 12,624 (Mar. 13, 2006).

In addition, the I-SIP must require monitoring of these SO_2 emission limits on a continuous basis using a continuous emission monitor system or systems. Monitoring performed pursuant to the New Source Performance Standard ("NSPS") requirements in 40 C.F.R. Part 60 is not adequate because the NSPS requirements do not call for monitoring during every hour of operation. In order to ensure the emission limits protect the one-hour SO_2 NAAQS, the emission limits must be monitored during every hour of operation.

The I-SIP is meant to implement, maintain, and enforce the NAAQS and therefore must include "enforceable emission limitations" to ensure its effectiveness. 42 U.S.C. § 7410(a)(2)(A). EPA has stated that only one-hour averaging periods can ensure compliance with the one-hour SO_2 NAAQS. Therefore, California must include emission limitations for the all major SO_2 sources that reflect the new one-hour SO_2 NAAQS limitation and the proper averaging period.

V. THE CALIFORNIA INFRASTRUCTURE SIP IMPERMISSIBLY FAILS TO ADDRESS SOURCES SIGNIFICANTLY CONTRIBUTING TO NONATTAINMENT OR INTERFERENCE WITH MAINTENANCE OF THE NAAQS IN DOWNWIND STATES.

California must address interstate transport of California's emissions that would contribute to exceedances or interfere with the maintenance of the NAAQS. Under section 110(a)(2)(D), a SIP must contain "adequate provisions (i) prohibiting . . . any source . . . from emitting any air pollutant in amounts which will—(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard . . . ." 42 U.S.C. § 7410(a)(2)(D)(i)(I). California's Infrastructure SIP, as proposed, fails to address any cross-state impacts that are due to sources

within the state. *See* I-SIP Submission at 17-18. This is inadequate and should result in EPA disapproving the submittal.

The Clean Air Act sets a mandatory duty for states to submit I-SIPs within three years of promulgation of a NAAQS. 42 U.S.C. § 7410(a)(1). Under CAA section 110, there is no prerequisite action required, such as EPA issuing guidance, before states must fulfill their mandatory duty. *Compare with Oklahoma v. EPA*, 723 F.3d 1201, 1205 (recognizing that certain provisions of the CAA require EPA to create guidance) (citing 42 U.S.C. § 7491(b)(1)). Therefore, California must create a SIP to address Prongs 1 and 2 of the Interstate provisions and provide the public with an opportunity to comment on it.

CalEPA cannot use *Homer City* as an excuse to ignore its obligations under Clean Air Act section 110(a)(2)(D)(i)(I). Although in dicta *Homer City* suggests that EPA must quantify upwind states' emission reduction obligations in order for states to submit SIPs addressing those obligations, this interpretation conflicts with the plain language of CAA section 110(a)(1), which indisputably requires states to submit Infrastructure SIPs within three years of promulgation or revision of any primary or secondary NAAQS. CAA section 110(a)(2)(D)(i)(I) requires these Infrastructure SIPs contain adequate provisions prohibiting sources in upwind states from contributing significantly to nonattainment or interfering with maintenance of the NAAQS in any downwind state.[11] Moreover, EPA's action on California's SIP is reviewable in the U.S. Court of Appeals for the Ninth Circuit, not the D.C. Circuit. Thus, *Homer City* provides no protection for CalEPA's failure to address section 110(a)(2)(D)(i)(I). CalEPA must provide provisions in its I-SIP to ensure that pollution from California is not preventing other states from attaining or maintaining the one-hour SO_2 NAAQS.

VI. THE CALIFORNIA INFRASTRUCTURE SIP IMPERMISSIBLY RELIES ON FEDERAL IMPLEMENTATION PLANS TO ADDRESS ITS OBLIGATIONS UNDER CLEAN AIR ACT SECTION 110(a)(2).

California cannot rely on Federal Implementation Plans ("FIPs") to meet its obligations under the CAA section 110(a)(2). California explains that each of its thirty-five air districts is responsible for their own stationary source permitting program. I-SIP Submission at 13. However, in actuality, only ten have fully approved prevention of significant deterioration ("PSD") programs. *Id*. Thus, thirteen air districts are relying in part or wholly on FIPs issued by the EPA. *Id*.[12] EPA has said that states cannot rely on FIPs to satisfy any part of the requirements of CAA section 110(a). *See* EPA I-SIP Guidance at 12-13 (stating that when a FIP addresses a gap in a SIP, "the EPA cannot give 'credit' for the FIP when determining whether an air agency has met any later obligations under these sections"). As EPA detailed in its guidance, a FIP is not a SIP and cannot be relied upon by a state to satisfy later requirements, such as those

[11] Indeed, the *Homer City* majority opinion acknowledges that it was not overturning EPA's prior finding of a failure on the part of the states to submit SIPs addressing interstate impacts, nor did it take issue with the concordant commencement of the two-year FIP clock. *Homer City*, 696 F.3d at 37, n.34.

[12] CalEPA states that several of these districts with FIPs are "in the process of obtaining PSD authority." I-SIP Submission at 13. However, this is incosequential and does not help ensure the requirements of section 110(a)(2) are met until these districts have approved programs.

imposed in subsequent NAAQS. Thus, California must provide other alternatives for how these thirteen air districts are implementing their PSD programs and maintaining and attaining the NAAQS.

VII. CONCLUSION

The proposed Infrastructure SIP fails to ensure that the 2008 eight-hour ozone and 2010 one-hour sulfur dioxide NAAQS are attained and maintained, as described above. CalEPA must adopt new provisions into the SIP to protect the public health and comply with the Act's requirements. The Sierra Club would be happy to provide any other information that might assist CalEPA in evaluating the impacts of these sources and developing an Infrastructure SIP in full compliance with the Act.

Respectfully submitted,

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