

Lehigh Consent Decree Frequently Asked Questions (FAQs)

1. What is the Consent Decree?

Answer: The Consent Decree (CD) is a written legal settlement to resolve alleged violations of the Federal Clean Air Act. The United States Environmental Protection Agency (US EPA) issued a Notice of Violation (NOV) in 2010, concerning physical modifications made in the 1990s at the Lehigh Cupertino Portland cement manufacturing facility. US EPA issued similar NOV's for other Lehigh facilities across the United States. US EPA alleges that these modifications should have triggered air permit review, which would have required additional controls for emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO₂). To resolve these NOV's, Lehigh Cement Company LLC (Lehigh) and Lehigh White Cement Company LLC (Lehigh White) have agreed to invest approximately \$12 million in pollution control technology at 11 Portland cement manufacturing plants (including the Cupertino facility) and in addition will pay civil penalties of \$1.3 million.

2. Who are the parties agreeing to this Consent Decree?

Answer: The CD is a written legal settlement between the Defendants in the case (Lehigh and Lehigh White) and the Plaintiffs (the United States, the Bay Area Air Quality Management District, the State of Indiana, the State of Iowa, the State of Maryland, the State of New York, the Pennsylvania Department of Environmental Protection, and the Jefferson County Board of Health). US EPA issued the NOV in 2010 and was joined by several environmental oversight agencies to pursue the case in Federal Court. These agencies have jurisdiction over areas where Lehigh and Lehigh White operate Portland cement facilities addressed in the CD.

3. Who will get the civil penalties?

Answer: Lehigh and Lehigh White have agreed to pay \$650,000 to the US Department of Justice and \$650,000 to the other plaintiffs in the case. The Air District will receive \$119,353 in penalties.

4. Does the public get an opportunity to provide input or comments on the legal settlement?

Answer: On December 3, 2019, the CD was lodged in Federal Court subject to a 30-day public comment period and final court approval. The public comment period was subsequently extended to close on February 10, 2020. Eight sets of public comments were submitted including six from community members and organizations located near the Lehigh facility in Cupertino. US EPA responded to these public comments with assistance from Air District staff and filed their responses along with the public comments in Federal Court on July 27, 2020.

5. When will the Consent Decree become final?

Answer: The CD was entered by the Federal Court on November 18, 2020, thereby making it final and setting the effective date.

6. What does this mean for operations at the Lehigh Facility in Cupertino?

Answer: Lehigh has agreed to reduce emissions of NO_x and SO₂ from the Kiln at their Cupertino facility by modifying and optimizing existing control equipment. The CD specifies the

type of emissions control equipment and requires continuous operation of that equipment and monitoring of emissions of NO_x and SO₂. The CD requires NO_x emissions to be reduced by 13% from the current NO_x limits by November 18, 2021. The CD includes a “test and set” protocol which provides a series of steps to optimize emissions control equipment, demonstrate effectiveness, and establish the lowest achievable SO₂ emissions limit. The initial SO₂ emissions limit established by the CD should result in an approximate reduction from current limits of at least 38%. Reductions may be considerably greater depending on the optimization of SO₂ emissions control equipment.

7. Why are the SO₂ emissions reductions not specified in the CD?

Answer: The purpose of the test and set protocol is to determine the lowest possible SO₂ emissions limit for the Cupertino Kiln but an initial SO₂ emissions limit will become effective about halfway into the test and set process (by roughly mid-2022, depending on potential temporary shutdowns and EPA review). The answer expressed above provides for that initial emissions limit and an expectation of a lower emissions limit as the final result of the test and set protocol.

8. What are the steps of the test and set protocol and how long will the process take?

Answer: The total process may take between two and three years and includes time for preparation, submittal and approval of a design and optimization plan, optimization report, and demonstration report, along with a period to design and install equipment and operational modifications, an optimization period, and a demonstration period. Review and approval periods for US EPA are not set and there may be extensions due to non-operation of the kiln, required permitting, or other reasons. A breakdown of the steps follows:

1. CD finalization (November 18, 2020).
2. Design and Optimization Protocol due two months after effective date.
3. US EPA review and approval of Design and Optimization Protocol.
4. Optimization Period begins within 180 days of EPA approval and must be completed within five months.
5. Optimization Report due 60 days after Optimization Period ends.
6. US EPA review and approval of Optimization Report.
7. Demonstration Period begins within seven days of EPA approval and lasts 270 operating days. SO₂ limit of 2.1 lbs./ton clinker in effect at start of Demonstration Period.
8. Demonstration Period may be extended due to unplanned outages.
9. Demonstration Report due within 60 days of Demonstration Period ending proposes new (30-day average) limit, subject to EPA approval.
10. US EPA review and approval of Demonstration Report. EPA will either approve the proposed emissions limit or establish an alternate limit.
11. New SO₂ emissions limit goes into effect 30 days after EPA approval unless Lehigh invokes dispute resolution provisions of the CD.

9. The Cupertino Kiln has been shut down for some time. Does this change the effective dates included in the CD?

Answer: The CD includes provisions for temporary cessation of kiln operations that adjust required actions and limits. Temporary shutdowns in the future may extend or delay some

provisions of the CD, and current non-operation may delay the initial phase of the test and set process. To be eligible for delay, Lehigh needs to provide written notice to US EPA in accordance with the requirements of the CD. If the notice is provided, then Lehigh is not required to install and operate the control devices by the dates specified in the CD, but they cannot commence operation afterward unless control is in place and in operation. For some provisions of the CD, non-operation has no bearing on the deadlines (i.e., submittal of the Design and Optimization Protocol is still due 2 months following the CD effective date). Commencement and duration of both the Optimization Period and Demonstration Period may also be affected by non-operation as addressed in the previous question. In addition, the CD also requires Lehigh to apply for and obtain new operating permits if they do not recommence operations within two years of the effective date (November 18, 2022).

10. Does the Consent Decree address visible emissions from the Kiln?

Answer: The CD includes provisions to address the potential development of a detached plume resulting from operation of NO_x emissions control equipment. In the event that Lehigh is unable to meet the NO_x limit in the CD due to a detached plume caused by control equipment, Lehigh must comply with the provisions of their site-specific Detached Plume Event Protocol that details the steps taken to identify and confirm the detached plume, the specific steps to address the detached plume prior to adjusting NO_x control parameters, specific adjustments to NO_x control, and a description of steps taken to return all operation parameters to pre-event status once the detached plume is no longer visible. The CD requires Lehigh to conduct a root cause analysis for each Detached Plume Event to identify and propose steps necessary to prevent an event from occurring in the future. Upon approval by US EPA, Lehigh will complete and implement all steps recommended in the root cause analysis report.

11. How will the Consent Decree affect Lehigh's Title V permit?

Answer: The CD requires Lehigh to submit timely and complete applications for relevant permits necessary to meet the compliance obligations of the CD. The Air District anticipates that Lehigh will submit an application for modifications addressed in the Design and Optimization protocol as approved by US EPA. This and subsequent applications will address:

- New NO_x limit of 2.0 pounds per ton of clinker produced
- Interim SO₂ limit of 2.1 pounds per ton of clinker produced
- Final SO₂ limit determined by the Test and Set protocols in Appendix C of the CD

The Air District will open both new source review applications and an application for a minor modification to Lehigh's Title V permit. The Air District anticipates issuing an authority to construct after US EPA approves the Design and Optimization Protocol, and a final permit to operate after US EPA approval of the Demonstration Report.