POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

DUWAMISH RIVER COMMUNITY COALITION; and FRONT AND CENTERED, Appellants, v. PUGET SOUND CLEAN AIR AGENCY; and ASH GROVE CEMENT COMPANY Respondents.	)	PCHB NO. NOTICE OF APPEAL

1. Identity of Appealing Parties and Representatives

The appealing parties are:

Duwamish River Community Coalition
7400 3rd Ave. South
Seattle, WA 98108
(206) 251-2038
paulina@drcc.org

Front and Centered
2800 First Avenue, Suite 201
Seattle, WA 98121
(206) 4874303
aurora@frontandcentered.org

The representatives of the appealing parties are:

Jaimini Parekh
Aurora Janke
Earthjustice
810 Third Avenue, Suite 610
Seattle, WA 98104
(206) 343-7340
jparekh@earthjustice.org
ajanke@earthjustice.org

Earthjustice
810 Third Ave., Suite 610
Seattle, WA 98104
(206) 343-7340

2. Identification of Other Parties

The respondent to this appeal is Puget Sound Clean Air Agency. The permittee is Ash Grove Cement Company.

3. Decision Under Appeal

This is an appeal of the Final Notice of Construction Order of Approval No. 12003 ("NOC Order 12003"), issued by the Puget Sound Clean Air Agency ("PSCAA") on December 5, 2025, permitting the Ash Grove Cement Company ("Ash Grove") to increase the amount of whole tires burned as fuel in the cement kiln system operated at the cement plant ("Ash Grove Plant") located at 3801 E. Marginal Way S, Seattle, WA, 98134-1113. A copy of the NOC Order 12003 is attached (Attachment 1). As required under WAC 371-08-340(3), Appellants also attach a copy of Ash Grove's application (Attachment 2).

Appellants also challenge PSCAA's decision to rely on a previously issued Determination of Non-Significance, which it issued on March 29, 1995 ("1995 DNS"). PSCAA incorporated its 1995 DNS by reference into its Final Notice of Construction Worksheet ("NOC Worksheet") for NOC Order 12003. A copy of the NOC Worksheet is attached (Attachment 3).

4. Statement of Facts and Preliminary Identification of Issues

The Ash Grove Plant is a cement manufacturing facility that sits in a residential neighborhood in the Duwamish River Valley, an area already overburdened by air pollution. The Ash Grove Plant has relied on a mix of coal, natural gas, whole tires, and a small amount of internally generated, waste-derived fuels to power its kiln system. The cement kiln is the main source of air pollution from the plant and regulated as a major source of criteria air pollutants. Criteria pollutants emitted from Ash Grove include but are not limited to carbon monoxide ("CO"), nitrogen oxides ("NOx"), sulfur dioxide ("SO_2"), and particulate matter. The Ash Grove

Earthjustice
810 Third Ave., Suite 610
Seattle, WA 98104
(206) 343-7340

Plant is also regulated as an area source for hazardous air pollutants; it emits toxic air pollutants including but not limited to organic hazardous air pollutants, dioxins and furans, heavy metals, and hydrochloric acid.

Previously, the cement kiln operated on no more than "30% TDF consumption by weight of fuel input on a daily average[.]" Attachment 2 at 1. On April 8, 2020, Ash Grove submitted a Notice of Construction application to PSCAA, requesting that the agency "remove the limit on tire derived fuel (TDF) consumption by the cement kiln at its Seattle, Washington cement manufacturing plant[.]" Attachment 2 at 1.

The modification that Ash Grove requested in its application would allow the cement plant to burn more whole tires as fuel. While Ash Grove's permit allows the facility to burn a variety of fuels to power its operations, the company has stated that since 2016 it exclusively burns tires and natural gas. Increasing the amount of tires burned as fuel would mean decreasing the amount of natural gas burned as fuel. PSCAA found that physical limitations at the Ash Grove Plant would prevent the facility from burning more than 37% tires, by weight of fuel input.

PSCAA issued its draft NOC Order 12003 and supporting documents in 2024 and solicited public comments and feedback. Appellant Duwamish River Community Coalition ("DRCC") commented on the proposed order, highlighting numerous flaws including the failure to include currently applicable emission limits required under federal law. Nevertheless, PSCAA issued a revised draft NOC Order 12003, which it submitted to the United States Environmental Protection Agency ("EPA") for review on October 8, 2025. DRCC submitted comments to EPA as well. On December 5, 2025, after the EPA took no action on the draft permit, PSCAA issued the final NOC Order 12003.

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(206) 343-7340

In its final order, PSCAA removed the 30% limit on burning whole tires as fuel. Instead, PSCAA tasked Ash Grove with developing a "fuel monitoring plan" within 60 days of issuance of the order wherein Ash Grove develops its own "maximum rate of whole tires that will be used." NOC Order, Condition 4. This new maximum rate would become the new "allowable maximum TDF firing percentage," and will be the "tire injection rate" used for conducting additional testing. *Id*. PSCAA also ordered Ash Grove to conduct stack testing for certain heavy metals, particulate matter, dioxins and furans, and hydrochloric acid ("HCl") within 60 days after submitting its fuel monitoring plan. *Id*. at Conditions 5, 7, and 9.

By issuing the final NOC Order 12003, PSCAA also modified the expired Title V permit, under which the Ash Grove Plant currently is allowed to operate. A copy of the modified expired Title V permit is included as Attachment 4. The Title V air operating permit for the Ash Grove Plant expired on May 15, 2009. Ash Grove applied to renew its Title V permit in 2008. However, PSCAA did not take action to renew the Title V air operating permit for seventeen years.

Three days after issuing the final NOC Order 12003, PSCAA issued a notice requesting public comment on a renewed draft Title V air operating permit. In its notice, PSCAA asserted that:

> This renewal incorporates all the new compliance requirements that have come into effect for Ash Grove Cement since the previous permit was issued in 2004, including the updated federal requirements for emissions of hazardous air pollutants from Portland cement manufacturing, and other applicable orders and regulations.

PSCAA, "Ash Grove Cement Company – Draft Air Operating Permit," Dec. 8, 2025, https://www.pscleanair.gov/m/newsflash/home/detail/183. The comment period for the draft Title V Permit renewal ends on February 10, 2026, and PSCAA will issue a renewed Title V

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Seattle, WA 98104
(206) 343-7340

Permit after considering and responding to comments. A renewed Title V Permit should incorporate the conditions set forth in NOC Order 12003.

5. Statement Explaining Grounds for Appeal

A. PSCAA failed to comply with state and federal laws governing clean air.

NOC Order 12003 is unlawful because it does not comply with either the requirements of the federal Clean Air Act and its implementing regulations or the Washington Clean Air Act and its implementing regulations. These laws seek to protect public health by placing limits on air pollution from stationary sources, like the Ash Grove Plant.

1. Federal Clean Air Act Violations

NOC Order 12003 is contrary to the federal Clean Air Act requirements because PSCAA did not require the Ash Grove Plant to comply with the emission limits and monitoring requirements for major sources of hazardous air pollution. A source "that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants[,]" is a major source. 40 C.F.R. § 63.2. Under federal regulations, cement kilns that are major sources of hazardous air pollution have a strict emission limit for HCl and are required to maintain continuous emission monitoring for HCl. *See* 40 C.F.R. § 3.1343 (describing applicable emission limits for cement kilns); 40 C.F.R. § 63.1350(l) (describing monitoring requirements for cement kilns).

PSCAA found that removing the limit on burning whole tires as fuel would potentially increase the emission of HCl, a regulated hazardous air pollutant, by up to 13 tons annually. Attachment 3 at 21. However, PSCAA declined to set any emission limit or require pollution controls for HCl emissions, based on its belief that limestone used in the cement manufacturing process would reduce emissions. *Id*. at 23. Instead, PSCAA ordered Ash Grove to conduct after-

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810 Third Ave., Suite 610
Seattle, WA 98104
(206) 343-7340

the-fact testing for HCl emissions once it developed its final maximum tire firing rate. PSCAA violated the Clean Air Act when it failed to require additional emission limits and pollution controls for HCl emissions at the time of permit issuance.

PSCAA also issued NOC Order 12003 before renewing the Title V air operating permit, which had already expired on May 15, 2009. The expired air operating permit does not include all updated emission limits and conditions required under state and federal law. By issuing NOC Order 12003, PSCAA took action to modify the expired Title V permit, without updating any of the emission limits and conditions contained therein as required by law. The Clean Air Act requires that any permit issued to a stationary source must include emission limits and conditions sufficient to "assure compliance" with all applicable Clean Air Act requirements. 42 U.S.C. § 7661c(a), (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1). As defined, "applicable requirements" include all standards, emissions limits, and requirements of the Clean Air Act. 40 C.F.R. § 70.2. Failing to ensure all applicable emission limits and conditions are listed in an air operating permit is also a violation of state law. WAC 173-401-600(1) ("Each permit shall contain terms and conditions that assure compliance with all applicable requirements at the time of permit issuance.").

2. Washington State Clean Air Act Violations

Washington law requires new source review for modifications to a facility that include any "change in the method of operation" of the source that "increases the amount of any air contaminant emitted by such source or that results in the emissions of any air contaminant not previously emitted." WAC 173-400-110(1)(c)(ii)(A); WAC 173-400-030(51) (defining "modification"). If the modification would increase the emission of hazardous air pollutants, the permitting authority "must ensure that the new or modified emission units use [best available control technology] for emissions control for the [toxic air pollutants] with emission increases[.]" WAC 173-460-040(3)(A). A facility "shall not establish, operate, or cause to be established or

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810 Third Ave., Suite 610
Seattle, WA 98104
(206) 343-7340

operated any new or modified toxic air pollutant source which is likely to increase [toxic air pollutant] emissions without installing and operating tBACT." WAC 173-460-060. Best Available Control Technology, or BACT, means "an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation" considering a range of factors, and technology options—including the use of cleaner fuels.[1] WAC 173-400-030. In other words, if a modification will increase toxic air pollutants, then a facility must employ best available control technology to control that toxic pollution.

PSCAA failed to require pollution control or emission limits to mitigate anticipated increases in HCl emissions. In its NOC Worksheet, PSCAA found that removing the limit on burning whole tires would increase emissions of HCl. NOC Worksheet at 21. Given the potential increase in HCl emissions, a regulated toxic air pollutant, PSCAA should have required the Ash Grove Plant to use tBACT to control the increased emissions of HCl. WAC 173-460-040(3)(A).

Instead, PSCAA concluded that it would not evaluate tBACT for HCl, NOC Worksheet at 23, because the agency assumed that limestone used in the cement manufacturing process would reduce emissions. *Id.* Yet PSCAA failed to provide any explanation or quantitative modeling demonstrating how and to what extent limestone used in cement manufacturing operations would reduce HCl emissions. PSCAA's failure to require the use of best available control technology to reduce emissions of HCl violated state law, and further PSCAA's unsupported assertion that the presence of limestone in the kiln would reduce HCl emissions such that tBACT was not required is arbitrary, capricious, and contrary to law.

[1] The term "tBACT" stands for best available control technology to control toxic air pollutants. WAC 173-460-020 (defining BACT for toxic air pollutant emissions).

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810 Third Ave., Suite 610
Seattle, WA 98104
(206) 343-7340

3. PSCAA Acted Arbitrarily and Capriciously When it Found Air Pollution Emissions Would Not Increase.

PSCAA's decision to issue NOC Order No. 12003 was arbitrary, capricious, and not in accordance with law, because PSCAA made errors in its analysis that undermined its conclusions in at least the following ways:

a. Reliance on emission testing data for certain criteria air pollutants provided by Ash Grove was unreasonable, because this data failed to document how emissions would increase relative to the clinker production rate, a key consideration in determining facility-wide emissions.

b. Failure to consider whether the existing baghouse could manage an increased load of particulate matter pollution and hazardous air pollutants including metals, which would result from burning more tires as fuel.

c. Failure to evaluate whether increased reliance on whole tires as fuel at the plant would increase dioxin and furan emissions.

d. Unreasonably and arbitrarily concluding that the modification would not increase emissions of organic hazardous air pollutants and certain heavy metals.

e. Unreasonably and arbitrarily finding that Ash Grove employed activated carbon injection as a pollution control measure, despite documents in the record to the contrary.

B. <u>PSCAA failed to comply with SEPA.</u>

The State Environmental Policy Act ("SEPA") requires agencies to consider how their actions could result in significant adverse effects to the environment. RCW 43.21C.010 *et seq*. In meeting this obligation, an agency may rely on previously prepared environmental documents, "if the documents adequately address environmental considerations set forth in RCW 43.21C.030." RCW 43.21C.034. PSCAA violated SEPA when it relied on the previously issued

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(206) 343-7340

1995 DNS, which considered a different project that did not address or disclose the environmental impacts of toxic air pollution that would result from increasing the burning of whole tires above the 30% limit. Changing the permit to eliminate the cap on burning tires, together with the long history of violations at the Ash Grove Plant, are substantial changes that PSCAA never considered contrary to its obligations under SEPA. Increasing combustion of whole tires as a supplemental fuel at the Ash Grove Plant—even if limited by facility operational constraints—will likely result in a significant adverse impact on air quality that in turn will harm public health. PSCAA's failure to consider the environmental impacts of its action is especially concerning, given that the Duwamish Valley has been designated as a neighborhood overburdened by air pollution, and any increase in air pollution would have a potentially significant adverse impact on public health.

6. Interests of the Appellants

Toxic air pollution from the Ash Grove Plant significantly harms the communities in Seattle that live near to this facility. Duwamish River Community Coalition ("DRCC") and Front and Centered are non-profit organizations dedicated to protecting the environment and communities living near the Ash Grove Plant and other overburdened and vulnerable communities all over the state who experience environmental harms and climate change impacts. The community-based work of Appellants advocating to reduce pollution from the Ash Grove Plant directly involves and impacts thousands of frontline people who live, work, and recreate in the Duwamish Valley. The Ash Grove Plant is located in the Duwamish Valley next to the West Seattle bridge, and near to the residential neighborhoods of Georgetown, South Park, and Delridge. The Duwamish Valley in South Seattle is a historically industrial area along the

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810 Third Ave., Suite 610
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(206) 343-7340

Duwamish River, known for its diverse, low-income communities in neighborhoods like South Park and Georgetown.

DRCC has long been a community steward for environmental justice in the Duwamish Valley, which is one of the most polluted areas in the entire Pacific Northwest following 100 years of industrial pollution. DRCC has worked tirelessly alongside community groups and neighbors for more than 20 years to clean up the water, land, and air while fighting to eliminate ongoing industrial pollution that makes their communities among the least healthy in King County.

Front and Centered is a climate justice coalition of organizations led by and serving communities of color in Washington. Front and Centered's mission is to advocate for the interests of frontline communities who are first and most impacted by the climate crisis, particularly low-income and BIPOC communities, in advancing a just and equitable transition from an extractive to a regenerative economy. Front and Centered will seek to elevate the voices of overburdened communities in this process.

Members and supporters of DRCC and Front and Centered live, work, go to school, and recreate near the Ash Grove Plant, and many submitted comments on the proposed draft NOC Order, raising concern with how the modification would increase air pollution in their communities. PSCAA's unlawful issuance of NOC Order 12003 would subject DRCC, Front and Centered, and their members and supporters to harmful air pollution from the Ash Grove Plant, which pose risks to human health, particularly for children, seniors, and people with chronic illnesses.

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810 Third Ave., Suite 610
Seattle, WA 98104
(206) 343-7340

7. Relief Requested

Appellants respectfully ask the Board to declare NOC Order 12003 unlawful, and prohibit PSCAA from reissuing the NOC Order until the agency corrects the emissions calculations, requires emissions limits, pollution monitoring, and use of pollution control technology to prevent the release of toxic air contaminants, and properly analyzes the environmental impacts under SEPA.

Appellants may seek to stay this appeal until completion of the administrative process to renew the Title V permit for the Ash Grove facility, because that administrative proceeding may resolve and correct errors identified in this notice of appeal.

8. Service

Copies of this Notice were sent to PSCAA, and Ash Grove by Federal Express on January 2, 2026.

Respectfully submitted this 2nd day of January, 2026.

s/ Jaimini Parekh
JAIMINI PAREKH, WSBA No. 53722
AURORA JANKE, WSBA No. 45862
Earthjustice
810 Third Avenue, Suite 610
Seattle, WA 98104
(206) 343-7340 | Phone
jparekh@earthjustice.org
ajanke@earthjustice.org

Attorneys for Appellants

Attachment 1

PUGET SOUND
Clean Air Agency

Puget Sound Clean Air Agency

Notice of Construction No. **12003**

HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. **11339**

Date

DEC 0 5 2025

Operation of One AGC-Seattle Whole Tire Feed System for injecting whole tires as replacement fuel at the Calciner level of the Preheater Tower above the Kiln, which is controlled by an existing Baghouse. This Order does not authorize any physical changes to the existing Whole Tire Feed System.

OWNER

Ash Grove Cement Company
3801 E Marginal Way S
Seattle, WA 98134

INSTALLATION ADDRESS

Ash Grove Cement Company
3801 E Marginal Way S
Seattle, WA 98134-1113

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
3. Ash Grove shall measure and record, each calendar day, the total weight of whole tires injected as non-hazardous secondary material fuel as defined by 40 CFR 241.4(a)(1).
4. Ash Grove shall submit a Fuel Monitoring Plan for injection of whole tires within 60 days after this approval. The plan shall contain the method for complying with condition 3, the replacement fuel composition (i.e., Btu content, percent ash, etc.), and the maximum rate of whole tires that will be used. The rate established in this submitted plan will become the new allowable maximum TDF firing percentage and will be the tire injection rate required during the testing for conditions 5, 7 and 9.
5. Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall complete a study to determine if this operational change results in an increase in the emission rate of metallic TAPs listed in WAC 173-460-150. The metals to be tested include arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium. Ash Grove shall submit a test plan that includes fuel rates for each condition. Tests will be in accordance with EPA Method 29, and the methodology for determining if there is an increase in emissions of a pollutant will be in accordance with Appendix C to 40 CFR Part 60. Based on the results of this test, one of the following two conditions shall take effect:

    a. If the study shows that modification does not lead to an increase in emissions of any tested TAP, the maximum rate of whole tires that will be used as defined in the Fuel Monitoring Plan required in condition 4 shall replace the previously established permitted tire consumption rate.
    b. If the study shows that this modification results in an increase in the emission rate to the atmosphere of any TAP, then the previous established rate 30% TDF by weight, daily average limit shall remain in place.

A limit of 30% TDF by weight, daily average limit shall remain in effect until the results of this study are

reported, except for the days needed to conduct this study. During the days of this study, the TDF limit shall be defined in the fuel monitoring plan required by condition 4.

6. Ash Grove shall submit an Emission Monitoring Plan within 60 days after this approval. The plan shall contain the following elements:
   a. Measurement methods, analytical procedure and testing dates for demonstrating compliance with the requirements of 40 CFR 63.1343(b)(1).
   b. The measurement methods shall include a combination of Continuous Emission Rate Monitoring Systems, Continuous Emission Monitoring Systems and source tests to show compliance with 40 CFR 60 subpart F and 40 CFR 63 Subpart LLL.

7. Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct source tests to demonstrate compliance with the following previously established emission limits:
   a. Kiln exhaust shall not exceed 0.30 lb of particulate per ton of feed (dry basis) except during SSM periods.
   b. Kiln exhaust shall not exceed 0.07 lb of particulate per ton of clinker except during SSM periods, per 40 CFR 63.1343(b)(1)
   c. Ash Grove shall not cause to be discharged into the atmosphere from the kiln exhaust Dioxin/Furan (D/F) exceeding 0.20 ng/dscm (TEQ) @ 7% O2. If the average temperature at the inlet to the baghouse during the D/F performance test is 400°F or less, this limit is changed to 0.40 ng/dscm (TEQ).

   Ash Grove shall conduct the tests at the maximum rate of whole tire injection specified in condition 4. These source tests shall use EPA Method 5 or EPA method 201 A (particulate) and EPA method 23 (dioxins/ furans). Ash Grove shall submit a report of the test results within 60 days of testing.

8. Ash Grove shall report any deviation from the fuel monitoring plan that represent a potential threat to human health or safety as soon as possible but no later than 12 hours after such a deviation is discovered. Ash Grove shall report other deviations in writing to Puget Sound Clean Air Agency Operating Permit Certification no later than 30 days after the end of the month during which the deviation is discovered.

9. Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct stack testing for hydrogen chloride per EPA Method 26 or 26A in accordance with PSCAA Regulation I 3.07. Ash Grove shall conduct the tests at the maximum rate of whole tire injection specified in condition 4 and shall use the tests to calculate a facility-specific emissions factor for HCl, in units of pounds of HCl per ton of clinker. The tests shall include three runs under raw-mill-up conditions, and three runs under raw-mill-down conditions.

10. This order of approval supersedes and cancels Order of Approval No. 5755, dated March 30, 1995.

Order of Approval for NC No. 12003

DEC 05 2025

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

Carl Slimp
Reviewing Engineer

John Dawson PE
John Dawson
Engineering Manager

Attachment 2

ASH GROVE

A CRH COMPANY

STRONG FOUNDATIONS. STRONG FUTURE.

April 8, 2020

Ms. Sara Conley
Engineer
Puget Sound Clean Air Agency
1904 Third Avenue, Suite 105
Seattle, WA 98101

RE: Notice of Construction Application for Tire Derived Fuel (TDF) Limit Removal at Ash Grove Cement Co. in Seattle, Washington

Dear Ms. Conley:

Ash Grove Cement Company (Ash Grove) respectfully submits this Notice of Construction (NOC) application to the Puget Sound Clean Air Agency (PSCAA) to revise PSCAA NOC No. 5755 and remove the limit on tire derived fuel (TDF) consumption by the cement kiln at its Seattle, Washington cement manufacturing plant (the facility). Ash Grove requests that PSCAA Air Operating Permit (AOP) No. 11339 be amended to reflect the changes requested in this letter. A complete NOC application form is included in Attachment A.

BACKGROUND

The cement kiln at the facility is currently limited to 30% TDF consumption by weight of fuel input on a daily average under Condition 6 to AOP No. 11339. PSCAA permitted the use of TDF as fuel in the cement kiln under the Order of Approval for NOC No. 5755, issued March 30, 1995. At that time, Ash Grove requested this limit on TDF consumption in order to qualify the kiln as a "cofired combustor." This classification allowed the facility to claim exemption from New Source Performance Standards (NSPS) Subpart Ea, which was in place at the time of approval of NOC No. 5755. Per 40 CFR § 60.51a, units combusting municipal solid waste with nonmunicipal solid waste fuel and subject to a federally enforceable limit of 30% or less of municipal solid waste by weight are defined as cofired combustors. Under 40 CFR § 60.50a(d), cofired combustors are not subject to NSPS Subpart Ea.

Since the establishment of this limit as NSPS Subpart Ea avoidance in 1995, the United States Environmental Protection Agency (EPA) finalized the non-hazardous secondary material (NHSM) rule on February 7, 2013 (78 Federal Register [FR] 9112). Certain additional amendments to the NHSM rule specifically related to TDF have also been promulgated by the EPA. The NHSM rule provides specific categorial exemptions and procedures stipulated under Title 40 of the Code of Federal Regulations (CFR) Part 241, *Solid Wastes Used as Fuels or Ingredients in Combustion Units* to characterize the TDF as a non-hazardous secondary material (NHSM) evaluated under the provisions of 40 CFR 241 Subpart B. TDF is no longer considered a "solid waste" as defined under 40 CFR 241. Therefore, the underlying basis for establishing this 30% limitation on a daily average is no longer valid since 2013. Ash Grove requests PSCAA to remove this 30% TDF daily consumption limit.

DIRECT 206-623-5596
FAX 206-623-5355

3801 EAST MARGINAL WAY SOUTH
SEATTLE, WA 98134-1113

ASHGROVE.COM

Per the Portland Cement Association (PCA) 2008 annual report, over 60% of U.S. and Canadian cement plants used TDFs in 2008 compared to zero waste fuel utilization in 1972. The energy from TDFs and all other alternative fuels now account for over 10% of the energy demand at cement plants.[1] The United States Environmental Protection Agency (EPA) and other environmental institutions have also thoroughly researched the use of TDFs in cement kilns in recent years.[2,3] This steady increase demonstrates that there continues to be an excess quantity of tires that cannot be readily used in recycling applications. Ash Grove would like to utilize more available tires in Washington and nearby states on an annual basis by removing this 30% daily limit. As discussed in this application, the proposed permit condition change does not result in any emission changes on hourly or annual averaging periods. This request will provide an environmentally safe disposal option for the available used tires in WA other than monofills or other recycling applications. As a part of this request, Ash Grove is not proposing to make any physical modifications to the kiln system or TDF handling system.

TDFs are not considered solid or hazardous waste because they meet the criteria for NHSM under the provisions of 40 CFR Part 241 Subpart B (NHSM Rule). As a result, the kiln at the Facility will continue to not be subject to the standards for commercial and industrial solid waste incineration (CISWI) units under 40 CFR Part 60 Subpart CCCC. As an existing source, the kiln will remain subject to 40 CFR Part 63 Maximum Achievable Control Technology (MACT) Subpart LLL regulations and applicable limits.

IMPACT TO KILN EMISSIONS

Hourly Potential Emissions

The modification of an existing source of air pollutants is subject to New Source Review (NSR) under PSCAA Regulation I, Section 6.03. PSCAA rules do not include their own definition of modification but adopt by reference the section of Washington Department of Ecology rules (WAC 173-400-030) which include the definition. The Ecology definition (below) references the section of the Clean Air Act that establishes the federal New Source Performance Standards.

> *WAC 173-400-030 (51): "Modification means any physical change in, or change in the method of operation of, a stationary source that increases the amount of any air contaminant emitted by such source or that results in the emissions of any air contaminant not previously emitted. The term modification shall be construed consistent with the definition of modification in Section 7411, Title 42, United States Code, and with rules implementing that section." The "rules implementing that section" are the NSPS rules in 40 CFR Part 60.*

The NSPS definition of modification states that "any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification." 40 C.F.R. § 60.14 defines "modification" for purposes of the NSPS and provides procedures for evaluating whether an emissions increase has occurred for determining pre-change and post-change emission rates.[4] The NSPS rule and guidance establish that an emission increase is based on whether the change results in an increase in *potential hourly* emissions. EPA has provided guidance on calculating the hourly

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[1] PCA. 2008. U.S. and Canadian Portland Cement Industry: Plant Information Summary,

[2] EPA. 2008. "Cement Sector Trends in Beneficial use of Alternative Fuels and Raw Materials."

[3] The Pembina Institute and Environmental Defense. 2014. White Paper on Alternative Fuel Use in Cement Manufacturing.

[4] *See* 40 C.F.R. § 60.14(b)(1).

increase using representative operating conditions at the maximum capacity of the facility and under the conditions at which maximum emissions will occur. EPA stated in a guidance memorandum that maximum emission rates "under current maximum capacity" must be compared to "emissions at maximum capacity after the change."[5] Similarly, in another guidance letter, EPA explained that "the proper way to determine whether a modification has occurred is to compare the hourly mass emission rate from the [facility] at full capacity before the change to the hourly mass emission rate from the [facility] at full capacity after the change."[6]

Ash Grove is currently required to limit the amount of tires injected into the kiln to 30% by weight on a daily average. This current limit is not based on an hourly averaging period. Ash Grove is permitted to inject up to 100% tires into the kiln in any hour as long as the daily average remains less than 30% by weight. The removal of the TDF limit will therefore not affect the potential hourly emissions from the kiln, and no further evaluation on hourly basis is needed. Therefore, the proposed request is not considered as a modification under PSCAA Regulation I, Section 6.03.

Long-Term Potential Emissions

Under Sections 1.A and I.B. to PSCAA AOP No. 11339, Ash Grove is currently subject to annual emission limits of carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide (SO_2), particulate matter (PM) and hydrochloric acid (HCl). Ash Grove is also subject to emission limitations of PM, dioxins & furans, mercury, and total hydrocarbons (THC) or organic hazardous air pollutants (OHAPs) under the Portland Cement (PC) MACT rules in 40 CFR 63 Subpart LLL. Ash Grove will continue to be subject to all emission limitations under PSCAA AOP No. 11339 and 40 CFR 63 Subpart LLL.

Ash Grove is not requesting any changes to the currently permitted emission limits, CO, NO_x, SO_2, HCl, and PM. Ash Grove also does not anticipate any change in actual emission levels. The impact of the removal of the TDF limit on emissions of NO_x, CO, SO_2, PM, volatile organic compounds (VOC), THC/OHAPs and Washington Toxic Air Pollutants (TAP) are discussed below.

NO_x

In cement kilns, NO_x emissions are formed during fuel combustion by two primary mechanisms: fuel NO_x and thermal NO_x. Thermal NO_x comes from the oxidation of molecular nitrogen present in combustion air, and fuel NO_x comes from the oxidation of nitrogen compounds in fuel. Because of the high temperatures involved in burning or clinker formation, thermal NO_x is the dominant mechanism for NO_x formation in kiln system.

High temperatures that lead to thermal NO_X are necessary for the required clinkering reactions in the kiln. One way to minimize thermal NO_X is to minimize the amount of combustion that must occur at a single location of maximum temperature (near the main burner). Changing the combustion such that a greater fraction of the fuel is inserted at another location (calciner, back end of kiln, etc.) allows for a lower maximum temperature at the main burner. This concept is called staged combustion, or mid-kiln firing, and is well documented as a mechanism for thermal NOx reduction. Further, tires are often a preferred fuel for mid-kiln firing at portland cement plants; EPA stated that "Technical literature, industry publications, and state emissions data for several kilns that have used or tested mid-kiln firing demonstrate NO_X reductions ranging from 28 to over 50 percent".[7]

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[5] Memorandum from Don Clay, EPA, to David Kee, EPA (Sept. 9, 1988) (EPA ADI Control No. 0000062). *See also* Letter from Lee M. Thomas, EPA, to John W. Boston, Wisconsin Electric Power Co. (Oct. 14, 1988) (EPA ADI Control No. NN02) (stating that "the baseline emission rates from units 1-5 are determined by hourly maximum capacity just prior to the renovation," and that EPA relied on "actual operating data" submitted by the company to determine the pre-change maximum capacity).

[6] Letter from R. Douglas Neeley, EPA, to Tracy R. Carter, Tenn. Dept. of Env't & Conservation (Aug. 11, 1999) (EPA ADI Control No. 0000043).

[7] NOx Control Technologies for the Cement Industry, September 2000, EPA-457/R-00-002. Pages 5-6.

As mid kiln firing of TDF is a method of improving staged combustion, it is expected to improve thermal NOx formation. Consequently, thermal NO_x emissions are expected to either remain the same or decrease with the increase in use of TDF.

The raw material feed may also contain nitrogen compounds which may lead to feed NO_x similar to fuel NO_x. However, the raw material feed will remain unchanged, and tires have a comparable or lower nitrogen content than the other fuels expected to be replaced by TDF usage.

Although there is an inherent variability in thermal NO_x, fuel NO_x and feed NO_x are not expected to increase. Thus, NO_x emissions are not expected to change due to the increase in TDF throughput. Ash Grove will continue to meet current NO_x permit limits and will continue to demonstrate compliance using NO_x CEMS. Therefore, no increase in NO_x emissions is expected. Ash Grove will continue to meet the kiln NO_x emission limits under AOP No. 11339.

CO

CO emissions from cement kilns result from the kiln feed (feed CO) and fuels (fuel CO). Feed CO can be produced from trace amounts of carbon and hydrocarbons that are inherently contained within the raw materials used in the cement manufacturing process. This will not change by use of tires as a fuel. Fuel CO is produced by incomplete combustion, and this is not a desired outcome since this means that the full heating value of the fuel is not being used efficiently. Good Combustion Practices used in the control of the kiln include minimizing CO as much as possible. Interruptions in fuel, feed or airflow can cause spikes of CO, but systems are already in place to minimize these excursions and stay within emissions limits.

As Ash Grove does not expect long term emissions of CO to increase, Ash Grove will continue to demonstrate compliance using CO CEMS and meet current CO permit limits under AOP No. 11339.

SO_2

SO_2 emissions from cement kilns are driven primarily by feed SO_2 formed due to sulfur in the form of metallic sulfides (pyrite), sulfate, or organosulfur compounds found in raw materials used to manufacture cement. The raw materials used in the kilns are not affected by the proposed increase in TDF, thus feed SO_2 emissions are not expected to change. SO_2 emissions may also come from fuel SO_2 due to SO_2 formed from the oxidation of organic, pyritic, and sulfate sulfur in the kiln fuel. However, fuel SO_2 emissions is not expected to change because the sulfur content of tires is expected to have a comparable or lower sulfur content than the other fuels expected to be replaced by TDF usage.

SO_2 emissions will not change as a result of this request. Ash Grove will continue to meet existing SO_2 permit limits and continue to demonstrate compliance using SO_2 CEMS. Ash Grove will continue to meet the kiln SO_2 emission limits under AOP No. 11339.

VOC and THC/OHAP & TAP

VOC emitted by the kiln is generated as feed VOC and fuel VOC. Feed VOC is the dominant source of VOC emissions and is created as the feed is heated and undergoes pyrolysis and/or volatilization. Because the raw materials used will not change, feed VOC emissions are not expected to increase.

Fuel VOC may result from the incomplete combustion of fuel in the kiln, though a properly designed and operated cement kiln system minimizes VOC formation from fuel combustion. Combustion-related VOCs are a minor component of total VOC emissions from a preheater/precalciner cement kiln because no combustion occurs in the flue gas stream after the potential generation of VOCs from raw materials.

In addition, the kiln is subject to organic pollutant emission limitations under PC MACT. PC MACT regulations limit cement kilns to a THC emission limit of 24 parts per million by volume dry basis (ppmvd) or OHAP limit of 12 ppmvd. Regardless of the type of fuel used, Ash Grove will demonstrate compliance with the applicable THC or OHAP emission limit. During the PC MACT rule making process, the EPA noted:

> *"Because the standards are based on complete combustion of the fuel, and because of the extremely high temperatures in the end of the kiln where fuels are introduced (both those burn hazardous wastes and those do not), we believe that both type of kilns should achieve comparable complete destruction of organic materials present in the fuels under normal operating conditions reflecting good combustion."*

Organics will be completely combusted due to the high operating temperature of the kilns. Therefore, Ash Grove supports the conclusion that emissions of VOC, THC/OHAP, and organic TAP will not increase due to increase in TDF usage in the kiln. Ash Grove will continue to meet MACT and permit limits for THC/OHAP and will demonstrate compliance using THC CEMS.

PM and Particulate HAP & TAP

PM emissions from the cement kiln are primarily due to particulate matter loading from raw materials, along with a minimal amount of ash from fuels. The removal of the TDF limit resulting into increase in TDF usage will not affect the potential of the raw material feed to form PM. Emissions of PM and particulate HAP & TAP are controlled by the kiln baghouse, and the increase in TDF usage will not increase the flow rate of exhaust gas through the baghouse or the capture efficiency of the filter media. In addition, the existing cement kiln will continue to be subject to emission limitations of PM under PC MACT regulations. Regardless of the type of fuel used, Ash Grove will demonstrate compliance with the PM emission limit.

Kiln emissions of particulate HAP and TAP may also be influenced by the concentration of pollutants within fuel sources. The PM limit under Subpart LLL is used as a surrogate for all particulate HAP. As a part of NHSM rulemakings, EPA compared all metal constituents of tires vs. traditional fuels such as coal. EPA promulgated tires as NHSM non-waste fuel because of no significance difference in metal constituents. TDF therefore will not contribute increased emissions of particulate HAP or TAP from the kiln and current PM limit on a 30-day basis will be used as a surrogate for all particulate HAPs and TAPs.

Emissions of PM and particulate HAP and TAP are not expected to increase as a result of the removal of the TDF limit. Ash Grove will continue meeting MACT and permit limits for PM and mercury and will continue to demonstrate compliance using PM Continuous Parametric Monitoring System (CPMS) and a continuous mercury emission monitoring system.

Dioxins & Furans

Emissions of dioxins & furans (D/F) from cement kilns are a primary function of exhaust gas residence time and temperature, which is independent of fuel type. In a letter to the Center for Maximum Potential Building Systems, the EPA similarly noted:[8]

"We believe that dioxin emissions from cement kilns in operations today are not a function of the fuels used in the manufacturing process, but rather occur primarily as a result of formation in the air pollution control system when favorable conditions for its formation are present. The recent EPA air standards have caused alterations to the emission control system designs and changes to the way the cement kilns are operated that minimize the potential for dioxin formation. Because emission standards applicable to cement kilns burning conventional fuels and to kilns

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[8] Letter from Susan Parker Bodine (EPA) to Gail Vittori (Center for Maximum Potential Building Systems) dated December 10, 2007.

burning hazardous waste fuels are the same for dioxin, dioxin emissions cannot be significantly different between them."

Therefore, D/F emissions are not expected to change as a result of the increase in TDF usage. Ash Grove will continue monitoring temperature of the exhaust gases from the kiln as required by MACT Subpart LLL and will continue meeting the existing temperature limits.

HCl and Hg

Hydrochloric acid (HCl) and mercury (Hg) emissions from cement kilns are primarily related to the composition of the raw materials used in the process. With regards to Hg and HCl emissions from cement plants, the EPA noted:[9]

> *"...emissions of these constituents were a function of raw material concentrations."*

Increase in TDF usage will not affect the potential of the raw material feed to form Hg or HCl. Therefore, HCl and Hg emissions are not expected to change as a result of this request. Under PC MACT regulations, existing cement kilns at an area source are subject to an Hg emission limit of 55 lb of Hg per MM ton of clinker. Condition I.A.17 of AOP No. 11339 limits HCl emissions to 100 ppm from all combustion sources. The applicable emission limits for Hg and HCl are irrespective of fuel usage. Regardless of the type of fuel used, Ash Grove will continue meeting MACT and permit limits on emissions of Hg and HCl. Ash Grove will continue demonstrating compliance with the MACT Hg limit using CEMS.

For the reasons described above and based on the information available to Ash Grove at this time, Ash Grove expects no increases in emissions for any of the regulated pollutants due to the proposed removal of TDF usage limitation. No additional emission changes of criteria pollutants attributed to the introduction of additional tires in the kiln is requested for the currently permitted levels. The table below provide a summary of applicable pollutants and the expected impact due to this request.

Table 1 below provides a summary of applicable kiln emission limits.

[9] Federal Register/Vol. 75, No. 174/Thursday, September 9, 2010, 54972.

Table 1. Summary of Applicable Permit and MACT Limits

Pollutant	Current Permit Limits	Proposed Limits	MACT Limit for Kiln	Continuous Monitoring Method	Changes Due to Increase in TDF Usage
CO	1045 ppm @ 10% O_2 (8-hr) 538 lb/hr (8-hr) 2353 tpy (annual)	No Change	--	CEMS	No
NO_x	650 ppm @ 10% O_2 (24-hr) 1846 tpy (annual)	No Change	--	CEMS	No
SO_2	180 ppm @ 10% O_2 (1-hr) 176 tpy (annual)	No Change	--	CEMS	No
HCl	100 ppm @ 7 % O_2 (1-hr)	No Change	--	None	No
VOC	--	--	--	CEMS	No
THC/ OHAP	--	--	24 ppmvd or 12 ppmvd	CEMS	No
PM	--	--	0.07 lb/ton clinker	CPMS	No
Hg	--	--	55 lb/MM ton clinker	CEMS	No
HCl	--	--	3 ppmd	CEMS	No
D/F	--	--	0.2 or 0.4 ng/dscm	CPMS	No
CO_2	--	--	--	CEMS	No

Basis of Modeling & Calculations in Application for PSCAA NOC No. 5755

Ash Grove included emission calculations and air dispersion modeling results in its response to the Draft Order of Approval for NOC No. 5755, dated February 22, 1995. Emission rates used in air dispersion modeling were determined using the highest production-based emission factor for each pollutant from a range of source tests performed on kilns burning fossil fuels and TDF. Emission rates were determined at the kiln's maximum production capacity. Because emission rates were determined using maximum emission factors at the kiln's maximum capacity, the 30% limit on TDF burning did not influence the results of emission calculations or air dispersion modeling leading to the approval of PSCAA NOC No. 5755. The TDF limit was requested solely to avoid the kiln's classification as a municipal solid waste incinerator. The impact of the removal of the TDF limit on federal solid waste incinerator rule applicability is discussed in the *Regulatory Applicability* section below.

REGULATORY APPLICABILITY

The following sections describe the regulatory applicability of the removal of the TDF limit.

Notice of Construction Applicability

According to PSCAA Regulation I, Section 6.03(a), "the establishment of a new source" of air emissions is subject to NOC requirements under PSCAA Regulation 1, Section 6.03. Pursuant to WAC 173-400-030(56), a modification, as defined in WAC 173-400-010(51), qualifies as a new source. As discussed in the *Impact to Kiln*

Emissions section above, the removal of the TDF limit is not a modification and is therefore not considered a new source. The provisions of NSR under PSCAA Regulation I Section 6.03 therefore do not apply. This application is submitted to amend the existing NOC No. 5755.

PSD Review Requirements

PSCAA Regulation I, Section 6.01 refers to WAC 173-400-720 Prevention of significant deterioration (PSD) regulations (effective 7/01/16).

The EPA defines a "major modification" as modification in which a physical change or change in the method of operation at a "major stationary" source results in a significant net emissions increase. Portland cement plants are considered PSD "major sources" if site-wide source emissions exceed 100 tpy of a regulated pollutant. Under this definition, the Facility is an existing PSD major source because the PTE of at least one PSD regulated pollutant exceeds 100 tpy.

The Facility has the potential to emit greater than 100 tpy of several PSD pollutants, and is therefore classified as an existing major stationary source under the PSD permitting program.[10] Unless otherwise exempt, a change to an existing major source is considered to be a major modification if the net emissions increase resulting from the modification is greater than the PSD Significant Emission Rate (SER) threshold for the respective regulated NSR pollutant. A structured step-by-step procedure to evaluate PSD applicability is used, in accordance with WAC and federal PSD regulations. Most of the definitions of terms used in this section are consistent with the corresponding definitions found in 40 CFR 52.21.

An important part of the major modification definition in the PSD regulation is that a physical or operational change must result in an emissions increase above the significance threshold. The Clean Air Act (CAA) requires only those changes that cause emissions to increase to be to subject to PSD/NSR. If there is no causal relationship between a project and an emission increase, then PSD cannot be triggered.

The EPA clearly understood this concept when it promulgated the 1980 PSD regulations containing the causation criteria in the major modification definition. The EPA provided that a "major modification" will occur under the 1980 NSR rules only when there is a direct causal link between a non-exempt change and any subsequent emissions increase. In the preamble to the 1992 PSD rule amendments, the EPA reiterated the causal linkage when it wrote (57 FR 32326):

> *"The NSR regulatory provisions require that the physical or operational change "result in" an increase in actual emissions in order to consider that change to be a modification (see, e.g., 40 C.F.R. 52.21(b)(2)(i))."*

In other words, PSD does not apply unless the source finds that there is a causal link between the proposed change and any post-change increase in emissions.

More recently, the EPA again confirmed the causal linkage in the December 2002 version of the PSD regulations. 2002 regulations articulated the "demand growth" exclusion that originates from the causal link requirement of the Clean Air Act. Under the demand growth principle, only increases that result from a proposed physical or operational method change are to be taken into account (67 FR 80186):

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[10] Ash Grove falls under the designation of "portland cement plant," which is identified in 40 CFR 52.21(b)(1)(i)(a) as having a major source PSD threshold of 100 tpy.

> *"Both the statute and implementing regulations indicate that there should be a causal link between the proposed change and any post-change increase in emissions..."*

Finally, the EPA again wrote on September 14, 2006, in their proposed rule involving Debottlenecking, Aggregation, and Project Netting (71 FR 54235):

> *"As we explained in promulgating the demand growth exclusion, we interpret the "which increases" and "which results in" language of section 111(a)(4) of the modification provision of the CAA as requiring "a causal link between the proposed change and any post change increase in emissions.""*

As discussed in the prior section, Ash Grove does not have a reason to believe that emissions from the proposed increase in TDF usage will change relative to the kiln's current emissions levels on actual or potential basis. Therefore, additional PSD review is not required, and this project does not trigger PSD permitting requirements for a major modification.

New Source Performance Standards (NSPS)

Subpart A - General Provisions

All affected sources subject to NSPS are also subject to the general provisions of NSPS Subpart A unless specifically excluded by the source-specific NSPS. NSPS potentially apply to constructed, reconstructed, or modified sources. 40 CFR §60.2 defines construction as fabrication, erection, or installation of an affected facility. As discussed previously in this letter, the proposed TDF limit removal does not involve construction of any newly affected facilities under Subpart F, therefore this project is not considered a new construction under NSPS.

40 CFR §60.15 defines reconstruction as the replacement of components of an existing facility to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and it is technologically and economically feasible to meet the applicable standards. The proposed project does not involve replacement of components of Subpart F affected facilities, therefore it is not considered a reconstruction under NSPS regulations.

40 CFR §60.14 defines modification as any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted. The proposed project will not result in increase of emissions of NO_x SO_2, or PM. Therefore, this project is not subject to NSPS §60.14 provisions.

40 CFR 60 Subpart F

Per 40 CFR 60.60(a), Subpart F for "Standards of Performance for Portland Cement Plants" applies to the following facilities:

> *"Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems."*

NSPS Subpart F applies to the following affected facilities at Portland cement plants that are constructed, reconstructed, or modified after August 17, 1971: kilns, clinker coolers, raw mill systems, finish mill systems, raw mill dryers, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems. Subpart F regulates PM, SO_x, and NO_x emissions with newer and more stringent standards for kilns that were constructed or modified after June 16, 2008. This kiln was constructed after August 17, 1971 and has not been modified after June 16, 2008. Therefore, this kiln is currently subject to the existing NSPS Subpart F requirements for units constructed after August 17, 1971 and not subject to the existing NSPS Subpart F requirements for units modified after June 16, 2008.
As discussed in earlier sections, the PM, NO_x, and SO_x emissions are not expected to increase. Therefore, this project is not considered a modification under NSPS provisions. As a result, this kiln will continue to be subject to NSPS Subpart F requirements for units constructed after August 17, 1971 and not subject to the existing NSPS Subpart F requirements for units modified after June 16, 2008. Ash Grove currently complies with all standards applicable to the kiln under 40 CFR Subpart F and will continue to meet all standards and requirements under Subpart F following the removal of the TDF limit.

40 CFR 60 Subpart Eb

40 CFR 60 Subpart Eb, "Standards of Performance for Large Municipal Waste Combustors" applies to municipal waste combustor units with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction, modification, or reconstruction is commenced after September 20, 1994.

40 CFR Subpart B, Section 241.4 provides non-waste determinations for specific non-hazardous secondary materials when used as fuel. Per 40 CFR § 241.4(a)(1), "scrap tires that are not discarded and are managed under the oversight of established tire collection programs, including tires removed from vehicle and off-speciation tires," are not considered solid wastes when used as a fuel in a combustion unit.

Ash Grove stores and handles TDF separate from waste streams at the facility. Tires used as TDF are managed as a resource and valuable commodity. Ash Grove receives tires from established TDF providers and maintains documentation from providers that shipments of TDF qualify as non-waste per 40 CFR § 241.4(a)(1).

Ash Grove will not combust any solid waste in the kiln at the Seattle facility. 40 CFR 60 Subpart Eb therefore does will apply to the kiln since TDFs are considered as non-waste fuel.

40 CFR 60 Subpart CCCC

40 CFR 60 Subpart CCCC, "Standards of Performance for Commercial and Industrial Solid Waste Incineration Units," applies to incineration units meeting the requirements in 40 CFR § 60.2010. Per 40 CFR § 60.2010(b), the incineration unit must be either a CISWI or an ACI as defined in § 60.2265. Per § 60.2265, CISWI and ACI are defined as follows:

> *Commercial and industrial solid waste incineration unit (CISWI) means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as that term is defined in 40 CFR part 241...*
>
> *Air curtain incinerator (ACI) means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. Air curtain incinerators are not to*

be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.

As discussed in the applicability assessment for 40 CFR Part 60 Subpart Eb above, Ash Grove does not combust any solid waste in the kiln at the Seattle facility. The kiln is not an air curtain incinerator as described in § 60.2265. 40 CFR Part 60 Subpart CCCC is therefore not applicable to the kiln at the Seattle facility or the removal of the TDF limit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

Subpart A - General Provisions

All affected sources are subject to the general provisions of Part 63 NESHAP Subpart A unless specifically excluded by the source-specific NESHAP. These provisions include initial notification and performance testing, recordkeeping, and monitoring requirements for all other subparts as applicable. Ash Grove will continue to comply with provisions of Subpart A as applicable.

40 CFR 63 Subpart LLL

40 CFR 63 Subpart LLL, "National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry" applies to "each new and existing Portland cement plant which is a major source or an area source as defined in § 63.2." The Seattle Plant is considered an area source of HAP emissions and is subject to 40 CFR 63 Subpart LLL. Affected sources under this NESHAP are kiln and inline coal mills, clinker coolers, raw mills, finish mills, raw material dryers, storage bins, conveying systems, bagging and bulk loading and unloading systems, and open storage piles.

Subpart LLL does not limit the types of materials or fuels that can be used in the kiln. However, kilns which burn hazardous waste, are subject to and are regulated under Subpart EEE - National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, instead of Subpart LLL. As discussed previously in this letter, tires are not considered a hazardous waste. Tires meet the exemptions and procedural requirements outlined in the NHSM pursuant to the provisions of 40 CFR 241 Subpart B, *Identification of Non-Hazardous Secondary Materials that are Solid Wastes When Used as Fuels or Ingredients in Combustion Units* (NHSM Rule). Therefore, the kiln will continue to be subject to the PC MACT Subpart LLL.

EPA amended PC MACT regulations, and amended regulations now include more stringent emission limits for PM, THC/OHAP, D/F, and Hg. Ash Grove as an existing area source has complied with these limits since they went into effect on September 9, 2015.

Provisions in 40 CFR §63.1348 (c) requires a new performance test for D/F if the subject facility undertakes operational changes that may adversely affect compliance with the applicable standards under Subpart LLL. Subpart LLL establishes the emission limits for PM, D/F, THC/OHAP, and Hg. As discussed in earlier sections, the proposed increase in tires does not affect the portland cement manufacturing emissions. Therefore, Ash Grove also asserts that the proposed project is a change that will not adversely affect compliance as stipulated under 40 CFR 63.1348 (c), whereby authorization is not required under 40 CFR 63.5 and notification is not required under 40 CFR 63.1348 (c) prior to implementation of increase in TDF use.

Ash Grove currently complies with all applicable emission limitations and performance testing, monitoring, reporting and recordkeeping requirements under Subpart LLL. The removal of the TDF limit will not cause any

previously inapplicable standards under Subpart LLL to apply to the kiln. Ash Grove will continue to comply with all applicable standards under Subpart LLL.

Washington Toxic Air Pollutant Regulations

PSCAA incorporates the Washington Toxic Air Pollutant (TAP) program under WAC 173-460 by reference. In 2019, the Washington State Department of Ecology issued updated TAP rules under WAC 173-460, effective December 23, 2019. At the time of the submittal of this NOC application, PSCAA has not adopted the 2019 issuance of WAC 173-460. This application assesses the impacts to TAP emissions in reference to the previous 2009 issuance of WAC 173-460. The impact of the removal of the kiln TDF limit on potential emissions of TAPs from the kiln is discussed in the *Impact to Kiln Emissions* section below.

Local Regulatory Applicability

The cement kiln at the Ash Grove Seattle Plant will continue to be subject to the following Ecology and PSCAA regulations:

Per PSCAA Regulation I Section 9.04(c)(2), no air contaminant source shall exceed opacity of 20% for any 6-minute period as determined by the continuous opacity monitor system (COMS).

Per PSCAA Regulation I Section 9.04(c)(1), the kiln stack shall not exceed opacity during any hour that averages greater than 5%.

Per PSCAA Regulation I Section 9.11, no air contaminant shall be emitted in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

Per PSCAA Regulation I Section 9.20, no features, devices, control equipment, or machines shall operate unless such equipment are maintained in good working order.

Ash Grove will continue to follow all other requirements applicable to the kiln under PSCAA AOP No. 11339. Ash Grove looks forward to receiving a completeness determination for this NOC application from PSCAA.

If you have any questions or comments about the information presented in this letter, please do not hesitate to call me at 206-694-6225.

Sincerely,

Laura McAnany
Ash Grove Cement Company
Plant Manager

Attachments

Appendix A
NOC Application Form

DIRECT 206-623-5596
FAX 206-623-5355

3801 EAST MARGINAL WAY SOUTH
SEATTLE, WA 98134-1113

ASHGROVE.COM

AGENCY USE ONLY	NOC#:	REG#:	Date Fee Pd:	Eng. Assigned:
	12003	11339	6/4/20	

PUGET SOUND
Clean Air Agency

1904 3rd Ave #105, Seattle, WA 98101
206-343-8800
pscleanair.gov

NOTICE OF CONSTRUCTION APPLICATION FOR ORDER OF APPROVAL

The following information must be submitted as part of this application packet before an Agency engineer is assigned to review your project.

SECTION 1. FACILITY INFORMATION

Business Name
Ash Grove Cement Company

Equipment Installation Address	City	State	Zip
3801 East Marginal Way South	Seattle	WA	98134

Is the business registered with the Agency at this equipment installation address?

☒ Yes. Current Registration or AOP No. 11339 ☐ No, not registered ☐ Unknown

Business Owner Name
Ash Grove Cement Company

Business Mailing Address	City	State	Zip
3801 East Marginal Way South	Seattle	WA	98134

Type of Business
Cement Manufacturer

Is the installation address located within the city limits?

☒ Yes ☐ No

NAICS Code	NAICS Description
32731	Hydraulic Cement Manufacturing

Contact Name (for this application)	Phone	Email
Laura McAnany	(206) 694-6225	laura.mcanany@ashgrove.com

Description for Agency Website

Provide a 1-2 sentence simple description of this project. See examples www.pscleanair.gov/176

Ash Grove Cement Company proposes to revise NOC No. 5755 to remove the limit on tire derived fuel consumption by the cement kiln at its Seattle, Washington cement manufacturing plant.

SECTION 2: REQUIRED APPLICATION PACKET ATTACHMENTS

1) **Process flow diagram**
☐ YES, attached. ☐ NO, not attached. This application is incomplete N/A - PFD not required

2) **Emission estimate**. Emission rate increases for all pollutants.
☐ YES, attached. ☐ NO, not attached. This application is incomplete. N/A - no associated emission increase

3) **Environmental Checklist** (or a determination made by another Agency under the State Environmental Policy Act) www.pscleanair.gov/DocumentCenter/View/170
☐ YES, attached. ☐ NO, not attached. This application is incomplete. N/A - SEPA checklist not required

SECTION 2: REQUIRED APPLICATION PACKET ATTACHMENTS (CONT)

4) Attach **equipment form**(s) applicable to your operation. Forms are available online at www.pscleanair.gov/179

☐ YES, attached. ☐ NO, not attached. This application is incomplete. N/A - no modification to equipment or new equipment installation proposed

5) **Detailed Project Description**

The project description must include a detailed description of the project, a list of process and control equipment to be installed or modified, a description of how the proposed project will impact your existing operations (if applicable), and measures that will be taken to minimize air emissions.

Detailed description of the proposed project included in packet?

☒ YES, attached. ☐ NO, not attached. This application is incomplete.

6) **$1,150 filing fee** (nonrefundable)

☒ PAY BY CHECK – Attached and made payable to **Puget Sound Clean Air Agency**

☐ PAY BY CREDIT – Accounting technician will contact person identified below for payment information

Contact Name:	Contact Number:
Laura McAnany	206-694-6225

SECTION 3: PROCESS AND CONTROL EQUIPMENT (attach additional pages if necessary)

Process Equipment		Does this equipment have air pollution control equipment?	Air Pollution Control Equipment	
# of Units	Equipment Type & Design Capacity		# of Units	Equipment Type
1	Dry process cement kiln	☒ Yes ☐ No	1	Pulse-jet baghouse filter
		☐ Yes ☐ No		
		☐ Yes ☐ No		
		☐ Yes ☐ No		

SECTION 4: CERTIFICATION STATEMENT

I, the undersigned, certify that the information contained in this application and the accompanying forms, plans, specifications, and supplemental data described herein is, to the best of my knowledge, accurate and complete.

Signature — April 8, 2020 (Date)

Laura McAnany (Printed Name) — Plant Manager (Title)

SECTION 5: APPLICATION SUBMITTAL

☐ **EMAIL application and attachments to:**

NOC@pscleanair.gov

-OR-

☒ **MAIL application, payment, and attachments to:**

Puget Sound Clean Air Agency
ATTN: NOC Application Submittal
1904 3rd Ave, Suite 105 - Seattle, WA 98101

Attachment 3

Notice of Construction (NOC) Worksheet

PUGET SOUND
Clean Air Agency

Applicant: Ash Grove Cement Company	**NOC Number**: 12003
Project Location: 3801 E Marginal Way S, Seattle, WA 98134-1113	**Registration Number**: 11339
Applicant Name and Phone: Marty Johnson, 206-694-6232	**NAICS:** 327310
Engineer: Carl Slimp	**Inspector**: Gerard Van Der Jagt

Draft Notice of Construction Order of Approval 12003 was open for public comment from December 10, 2024, through March 4, 2025. The Order of Approval conditions, beginning on Page 13 of this worksheet, have been updated in light of the comments received during the comment period. The Agency's response to comments begins on Page 15.

A. DESCRIPTION

For the Order of Approval:
Operation of One AGC-Seattle Whole Tire Feed System for injecting whole tires as replacement fuel at the Calciner level of the Preheater Tower above the Kiln, which is controlled by an existing Baghouse. This Order does not authorize any physical changes to the existing Whole Tire Feed System.

Permit History

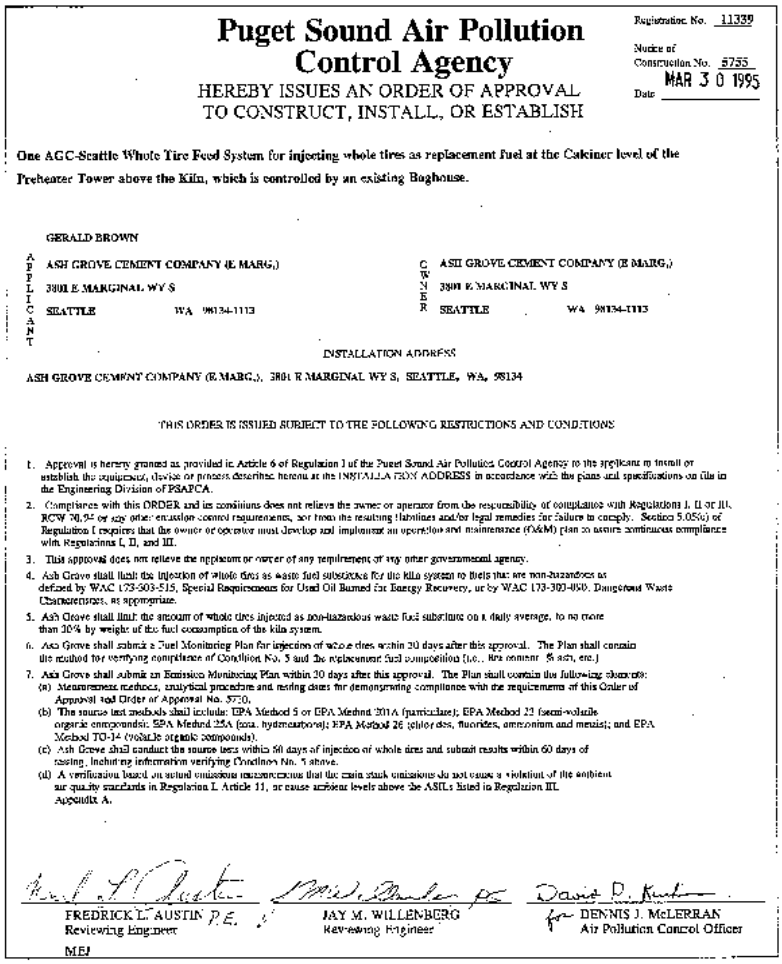
EU 1. 31 40 CFR 63.1349(e)(3)(i) 12/6/02 Provide Puget Sound Clean Air
Agency written notice at least 60 days prior to undertaking any operational change that may adversely affect compliance with the D/F emission standards in Conditions EU 1.26 and 1.27, or as soon as practicable where 60 days advance notice is not feasible. Notice shall include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required by Condition EU 1.32, including when the planned operational change would begin.

EU 1. 32 40 CFR 63.1349(b)(3) and (e), 12/6/02
Conduct a dioxin/furan performance test whenever Ash Grove plans to undertake a change in operations that may adversely affect compliance with the D/F emission standards in Conditions EU 1.26 or 1.27. In preparation for and while conducting the performance test, the kiln and raw mill may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that Ash Grove notifies Puget Sound Clean Air Agency as described in Condition EU 1.31, that the performance test results are documented in a test report containing the information listed in 40 CFR 63.1349(a), and that a test plan is made available for Puget Sound Clean Air Agency review prior to testing, if requested. The performance test must be completed within 360 hours after the planned operational change begins. Ash Grove shall submit to Puget Sound Clean Air Agency temperature and other monitoring data recorded during any period of pretest operations. II.C.8 Subpart LLL
Performance Test Reporting II.D.8 NESHAP Subpart LLL
Recordkeeping (3) 3-hour runs EPA Method 23 (40 CFR 60, Appendix A, July 1, 2002)

EU 1. 33 40 CFR 63.1349(e)(1) 12/6/02 Data collected during a performance test under Condition EU 1.32 shall be used to establish new temperature limits for the kiln, supplanting the limits established under 40 CFR63.1349(b).

6. Tire Derived Fuel Consumption
Ash Grove shall monitor the weight of whole tires injected into the kiln following the Fuel Monitoring Plan required by Order of Approval 5755, Condition 6. Report a deviation per Condition II.C.2 of AOP 11339 if the daily weight of whole tires injected during each calendar day (7 am to 7 am) exceeds 30 percent of the weight of all fuels

consumed in the kiln during that day. Report the daily weight of whole tires injected per Condition II.C.11 of AOP 11339. [Order of Approval 5755, Condition No. 6 (1/11/95); WAC 173-401-615(1) and WAC 173-401- 615(2) (10/17/02)]



Puget Sound Air Pollution Control Agency

HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. 11339
Notice of Construction No. 5755
Date MAR 3 0 1995

One AGC-Seattle Whole Tire Feed System for injecting whole tires as replacement fuel at the Calciner level of the Preheater Tower above the Kiln, which is controlled by an existing Baghouse.

APPLICANT: GERALD BROWN
ASH GROVE CEMENT COMPANY (E MARG.)
3801 E MARGINAL WY S
SEATTLE WA 98134-1113

OWNER: ASH GROVE CEMENT COMPANY (E MARG.)
3801 E MARGINAL WY S
SEATTLE WA 98134-1113

INSTALLATION ADDRESS

ASH GROVE CEMENT COMPANY (E MARG.), 3801 E MARGINAL WY S, SEATTLE, WA, 98134

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Air Pollution Control Agency to the applicant to install or establish the equipment, device or process described herein at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of PSAPCA.
2. Compliance with this ORDER and its conditions does not relieve the owner or operator from the responsibility of compliance with Regulations I, II or III, RCW 70.94 or any other emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply. Section 5.05(c) of Regulation I requires that the owner or operator must develop and implement an operation and maintenance (O&M) plan to assure continuous compliance with Regulations I, II, and III.
3. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
4. Ash Grove shall limit the injection of whole tires as waste fuel substitute for the kiln system to fuels that are non-hazardous as defined by WAC 173-303-515, Special Requirements for Used Oil Burned for Energy Recovery, or by WAC 173-303-050, Dangerous Waste Characteristics, as appropriate.
5. Ash Grove shall limit the amount of whole tires injected as non-hazardous waste fuel substitute on a daily average, to no more than 20% by weight of the fuel consumption of the kiln system.
6. Ash Grove shall submit a Fuel Monitoring Plan for injection of whole tires within 30 days after this approval. The Plan shall contain the method for verifying compliance of Condition No. 5 and the replacement fuel composition (i.e., tire content % ash, etc.)
7. Ash Grove shall submit an Emission Monitoring Plan within 30 days after this approval. The Plan shall contain the following elements:
   (a) Measurement methods, analytical procedure and testing dates for demonstrating compliance with the requirements of this Order of Approval and Order of Approval No. 5720.
   (b) The source test methods shall include: EPA Method 5 or EPA Method 201A (particulate); EPA Method 23 (semi-volatile organic compounds); EPA Method 25A (tota. hydrocarbons); EPA Method 26 (chlorides, fluorides, ammonium and metals); and EPA Method TO-14 (volatile organic compounds).
   (c) Ash Grove shall conduct the source tests within 60 days of injection of whole tires and submit results within 60 days of testing, including information verifying Condition No. 5 above.
   (d) A verification based on actual emission measurements that the main stack emissions do not cause a violation of the ambient air quality standards in Regulation I, Article 11, or cause ambient levels above the ASILs listed in Regulation III, Appendix A.

FREDRICK L. AUSTIN P.E.
Reviewing Engineer

JAY M. WILLENBERG
Reviewing Engineer

for DENNIS J. McLERRAN
Air Pollution Control Officer

MEJ

Form 50-118. (1-93)

DATABASE INFORMATION

New NSPS due to this NOCOA?	**No**	**Applicable NSPS:**	**Delegated?**
New NESHAP due to this NOCOA?	**No**	**Applicable NESHAP:**	**Delegated?**
New Synthetic Minor due to this NOCOA?	**No**		

Existing NESHAP: 40 CFR 63 Subpart LLL
Existing NSPS: 40 CFR 60 Subpart F & Y

B. NOC FEES AND ANNUAL REGISTRATION FEES

NOC Fees:

Fees have been assessed in accordance with the fee schedule in Regulation I, Section 6.04. All fees must be paid prior to issuance of the final Order of Approval.

Fee Description	Cost	Amount Received (Date)
Filing Fee	$ 1,150	
Modification of Existing Permit Conditions	$ 650	
Associated Public Notice Fees: DJC Extension 12/23/2024- $ 464.00 Seattle Times 12/23/2024 $ 1,740.00 Seattle Times 12/10/202 $ 1,680.00 DJC Notice 12/10/2024- $ 452.40	$ 4,336.40	
Public Hearing	$2,500	
Associated Public Hearing Fees Seattle Times 01/28/2025 $ 2019.60 DJC Hearing 01/28/2025 $ 509.35	$ 2,528.95	
Reg 1, Section 7.07(c)(3)	$16,250	
Filing received		$ 1,150 (6/4/2020)
Additional fee received		$ 26,265.35
Total		**$27,415.35**

Registration Fees:
Registration fees are assessed to the facility on an annual basis. Fees are assessed in accordance with Regulation I, Section 7.07. No new changes due to this application.

20230004 - 11339.pdf

C. STATE ENVIRONMENTAL POLICY ACT (SEPA) REVIEW

State Environmental Policy Act (SEPA) review was conducted in accordance with Regulation I, Article 2. The SEPA review is undertaken to identify and help government decision-makers, applicants, and the public to understand how a project will affect the environment. A review under SEPA is required for projects that are not categorically exempt in WAC 197-11-800 through WAC 197-11-890. A new source review action which requires a NOC application submittal to the Agency is not categorically exempt.

A new SEPA determination is not required because the potential impacts from this project were reviewed under SEPA by and a DNS was issued by PSCAA on 3/29/95 with NOC No. 5755. A copy of this DNS is included below and is being relied upon for this project.

NOC #5755
Reg. #13359

Puget Sound Air Pollution Control Agency

110 Union Street, Suite 500
Seattle, Washington 98101-2038

Telephone: (206) 343-8800
Facsimile: (206) 343-7522

DETERMINATION OF NONSIGNIFICANCE

Description of proposal

One AGC-Seattle Whole Tire Feed System for injecting whole tires as replacement fuel at the Coleiner level of the Preheater Tower above the Kiln, which is controlled by an existing Baghouse.

Proponent

ASH GROVE CEMENT COMPANY (E MARG.)
3801 E MARGINAL WY S, SEATTLE, WA, 98134-1113

Owner

ASH GROVE CEMENT COMPANY (E MARG.)
3801 E MARGINAL WY S, SEATTLE, WA, 98134-1113

Location of proposal, including street address, if any

ASH GROVE CEMENT COMPANY (E MARG.), 3801 E MARGINAL WY S, SEATTLE, WA, 98134

Lead Agency

PUGET SOUND AIR POLLUTION CONTROL AGENCY

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

☐ There is no comment period for this DNS.

☐ This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by

Responsible Official: **Dennis J. McLerran**

Position/Title: **Air Pollution Control Officer**

Address: **110 Union Street, Suite 500, Seattle, Washington 98101-2038**

Date: 3/29/95 Signature: David D. Kunz

Form 62-172, (1/89)

D. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) REVIEW

Best Available Control Technology (BACT)

New stationary sources of air pollution are required to use BACT to control all pollutants not previously emitted, or those for which emissions would increase as a result of the new source or modification. BACT is defined in WAC 173-400-030 as, "an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under Chapter 70.94 RCW emitted from or which results from any new or modified stationary source, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant."

An emissions standard or emissions limitation means "a requirement established under the Federal Clean Air Act or Chapter 70.94 RCW which limits the quantity, rate, or concentration of emissions of air contaminants 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 adopted under the Federal Clean Air Act or Chapter 70.94 RCW."

Best Available Control Technology for Toxics (tBACT)

New or modified sources are required to use tBACT for emissions control for TAP. Best available control technology for toxics (tBACT) is defined in WAC 173-460-020 as, "the term defined in WAC 173-400-030, as applied to TAP."

The EPA has encouraged the use of tire derived fuel, as noted in the April 2005 document EPA530-F-05-006 as long as the facility: (1) have a tire storage and handling plan; (2)have secured a permit for all applicable and state and federal environmental programs; and (3) are in compliance with all the requirements of that permit. It does not state an upper limit. The EPA also released a Fact Sheet on Non-Hazardous Secondary Materials Determinations and Scrap Tires, found here: https://www.epa.gov/sites/default/files/2020-12/documents/scrap_tire_fact_sheet_dec_2020_v2.pdf. This Fact Sheet cites that for tires to remain non-waste, they must follow 40 CFR section 241.3(d)(1).

A Fact Sheet released by the Portland Cement Association, found here: https://archive.epa.gov/epawaste/conserve/materials/tires/web/pdf/brochure5-08.pdf, noted that notes that dioxin-furan emissions from kilns firing TDF were approximately a third of non TDF-firing kilns. PM emissions were also noted to go down by 35%. It also noted that there was no statistically significant difference between kilns firing TDF and non-TDF firing kilns in emissions of sulfur dioxide, nitrogen oxides, total hydrocarbons, carbon monoxide and metals.

Similar Permits

Ash Grove is the only cement kiln in the PSCAA jurisdiction. However, Ash Grove does have various locations around the country that do use tires as fuel.

Other Regulatory Agencies BACT for Ash Grove Cement Plants

01-0029-TV-01 Oregon DEQ
This facility is not allowed to burn any solid waste but is allowed to fire tires. There is no upper limit by weight, however, this permit has the following applicable conditions:

43. Applicable Requirement: The permittee shall not heat the kiln, in whole or in part, by combusting solid waste (as the term is defined in 40 CFR 241). Secondary materials used in the kiln shall not be deemed to be combusted unless they are introduced into the flame zone in the hot end of the kiln or mixed with the precalciner fuel. [40 CFR 60.2875 – definition of "waste-burning kiln"] Waste tires are not considered a solid waste.

44. Monitoring Requirement: The permittee must maintain records of any non-hazardous secondary materials that are combusted in order to heat the kiln and that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1). These records must document how the secondary material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1). If the permittee combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(4), records must be maintained as to how the operations that produced the fuel satisfy the definition of processing in 40 CFR 241.2 and each of the legitimacy criteria in 40 CFR 241.3(d)(1). If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), records must be maintained that document how the fuel satisfies the requirements of the petition process. If the permittee combusts non-hazardous secondary material as fuel per 40 CFR 241.4, records must be maintained documenting that the material is a listed non-waste under 40 CFR 241.4(a). [40 CFR 63.2740(u)]

2300015004 Utah DEQ
This permit has the following conditions for tire derived fuel below:

Condition: Permittee shall meet the following requirements when used oil or tire derived fuel (TDF) is burned in the rotary kiln: i. Combustion gas temperature at the rotary kiln exit shall not drop below 1500 degrees Fahrenheit for more than five minutes in any 60-minute period. ii. Oxygen content at the kiln system ID fan shall not drop below 2% for more than five minutes in any 60-minute period. [Origin: DAQE-AN103030029-19]. [R307-401-8]

Monitoring: The permittee shall continuously monitor the temperature and oxygen content at all times used oil or TDF is burned in the kiln using equipment approved by the Director. Calibration procedure and frequency shall be according to manufacturer's specifications. Use of factory calibrated thermocouples for temperature measurement is approved. All monitoring equipment for both temperature and oxygen shall be located such that an inspector can safely read the output at any time. Additionally, the permittee shall monitor the quantities and times that used oil or TDF is burned in kiln.

Recordkeeping: Permittee shall record the temperature and oxygen content at no less than every 5 minutes during operations when used oil or TDF is burned in the kiln. The permittee shall record the quantities and times when used oil or TDF is burned in the kiln. Records shall be maintained in accordance with Provision I.S.1 of this permit.

Condition II.B.4.b also limits TDF to not exceed 15% of the combined energy input to the rotary kiln and pre-calciner.

Analysis

Ash Grove is currently allowed to burn TDF up to 30% of their total fuel by weight on a daily average. This permit action would remove that limit, which should not increase emissions at all. Ash Grove has several facilities, and they handle tire burning in a few different ways.

The first way is to register the facility for burning hazardous materials, which was the case in Arkansas and Kansas. The Seattle facility is avoiding this option, which is unnecessary as long as the TDF can be tracked as a non-hazardous secondary material and fuel source.

Out of all the locations, the Oregon facility offers the best parallel. The first applicable condition restricts the entire kiln from being heated with just tires. This is applicable in this situation because the kiln in Seattle is not designed to be entirely operated on tire derived fuel (TDF) and would require a modification. Tires are currently injected at the calciner level of the preheater tower above the kiln. Based on the location, it would be a mischaracterization to state the process could be entirely operated on TDF without a modification. This permit does not authorize modifications to the existing tire feed system, but rather allows the current tire feed system to be utilized up to its physical capabilities.

The second condition is keeping a fuel management plan. This is also currently required by the Seattle location.

A copy of all documents cited above are saved in the project folder.

Recommendations

- Kiln cannot be 100% operated on TDF
- Implement fuel management and usage plan

E. EMISSION ESTIMATES

Proposed Project Emissions

Actual Emissions

This change in operation should not increase actual emissions. Ash Grove did a short study increasing their hourly average while maintaining their daily average below 30%. The data is saved in the file folder and the results are shown below:

	CO ppmc	CO lb/hr	NO_X ppmc	NO_X lb/hr	SO_2 ppmc	SO_2 lb/hr	TDF tn/hr	TDF weight %
Normal Average 9/20 & 9/22	763.4	397.5	434.5	369.0	30.7	36.8	2.1	26%
TDF Trial 9/21 Hr 10-13	758.0	395.5	389.8	334.0	30.5	36.4	3.1	37%

This matches the EPA and Portland Cement Association's study that TDF does not significantly change emissions.

Potential Emissions

This facility is subject to limits in 40 CFR 60 Part F, 40 CFR 60 Part Y and 40 CFR 63 Part LLL. Those limits are summarized below:

Pollutant	Limits
PM	• 20% Opacity • 46 tons per year • 0.30 lb/ton clinker • 0.07 lb/ton clinker
CO	• 1045 ppm @ 10%O_2 8-hr average • 538 lbs/hr – 8 hr average • 2353 tons per year
NOx	• 650 ppm @ 10% O_2 24-hr average • 1846 tons as a 12-month running total
SO_2	• 180 ppm @ 10% O_2,1-hr average • 176 tons per year
THC/OHAP	• 24 ppmvd or 12 ppmvd (MACT)
HCl	• 100 ppm @ 7% O_2 1-hour average
D/F	• 0.20 ng/dscm @ 7% O_2 (MACT) or 0.4 ng/dscm @ 7% O_2

The criteria pollutants are measured with CEMS or CPMS. Removing the tire derived fuel usage limit, Condition No. 5 of Order of Approval No. 5755, would not pose any new risk of exceeding these limits. Dioxin/furan emissions are measured by periodic stack test.

Facility-wide Emissions

Actual Emissions

Reg 11339 - Ash Grove Cement Company : 3801 E Marginal Way S,... Below Reporting Thresholds enter a year...

Source Details

Points

Point	Description	Stack Height (in ft)	Stack Diameter (in ft)	Exit Gas Temp °F	Exit Gas Flow Rate (in CFM)	Installed Year	Inactive Year	Emission Unit Type
1	Cement Kiln	200.00	10.00	370	170000	1990		790-Other bulk material equi...
2	Raw Material Handling & Storage	10.00	3.00	72	2100	1990		790-Other bulk material equi...
3	Kiln Feed Handling & Storage	10.00	3.00	72	2100	1990		210-Kiln
4	Clinker Handling And Storage	10.00	3.00	72	2100	1968		790-Other bulk material equi...
5	Cement Handling And Storage	10.00	3.00	72	2100	1968		790-Other bulk material equi...

Segments

Segment	Description	Source Classification Code	SCC Units	Process Units	EPA Primary Device	EPA Secondary Device	Fuel Type	Heat Content	Sulfur Content...	Ash Content (%)
1	Cement Kiln Dry Process With Baghouse Fa...	3-05-006-06	Tons of Cement Produced	Ton	127-Fabric Filter / Bagho...	206-Dry Sorbent Injectio...	tires	145065.0000	1.0000	
2	Coal Mills	3-05-006-06	Tons of Cement Produced	Ton	127-Fabric Filter / Bagho...					

Segment Emissions in Pounds for Point 1, Segment 1

Chemical Name	CAS	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	VOC	TAC	HAP
Acetaldehyde	75-07-0		8147	9244				3863	4155	2017		☑	☑	☑
Acetone	67-64-1										0	☐	☐	☐
Ammonia (NH3)	7664-41-7		7751	6916	9445	3487	25485	9816	9045		0	☐	☑	☐
Benzene	71-43-2				4729	5817	5349	2147		2592	7678	☑	☑	☑
Carbon Monoxide	CO		1476284	1854628	1813600	1917062	2152335	1902946	1867659	1803600	2101000	☐	☐	☐
Formaldehyde	50-00-0			3388				5590	5909	4533	10333	☑	☑	☑
Nitrogen Oxides	NO2		1611328	2136064	2241582	2132057	2317989	2685972	2636165	2728400	2091200	☐	☐	☐
Particulate Matter	PM10		1547	1756	1645	1859	1872	26824	28249	36092	48164	☐	☐	☐
Particulate Matter	PM2.5		1439	1633	1530	1729	1741	24947	26271	33565	44790	☐	☐	☐
Sulfur Oxides (including 7446-09-...	SO2		92378	153108	129584	155330	134942	136320	133792	144200	104200	☐	☑	☐
Toluene	108-88-3							927	970			☑	☑	☑
Total HAP Pollutant	THAP		12917	15734								☐	☐	☑

Potential Emissions

See limits above

F. OPERATING PERMIT OR PSD

The Title V Air Operating Permit (AOP) program applicability for the entire source has been reviewed.

The facility is a Title V "**air operating permit source**" and conditions of this Order will be incorporated into the AOP during the next AOP opening.
Emission increases associated with this project were reviewed for Prevention of Significant Deterioration (PSD) Program applicability. The facility is an existing PSD major source, this project is not expected to increase the tons per year of emissions of any pollutant; therefore, any change in emissions from this permitting action is below PSD thresholds.

G. AMBIENT TOXICS IMPACT ANALYSIS

Like criteria pollutants, removing the daily limit for tire derived fuel should not increase any known TAP.

H. APPLICABLE RULES & REGULATIONS
Puget Sound Clean Air Agency Regulations

SECTION 5.09 (b): The owner or operator of a registered source shall develop and implement an operation and maintenance plan to ensure continuous compliance with Regulations I, II, and III. A

copy of the plan shall be filed with the Control Officer upon request. The plan shall reflect good industrial practice and shall include, but not be limited to, the following:
(1) Periodic inspection of all equipment and control equipment;
(2) Monitoring and recording of equipment and control equipment performance;
(3) Prompt repair of any defective equipment or control equipment;
(4) Procedures for startup, shut down, and normal operation;
(5) The control measures to be employed to ensure compliance with Section 9.15 of this regulation; and
(6) A record of all actions required by the plan.
The plan shall be reviewed by the source owner or operator at least annually and updated to reflect any changes in good industrial practice.

SECTION 6.09: Within 30 days of completion of the installation or modification of a stationary source subject to the provisions of Article 6 of this regulation, the owner or operator or applicant shall file a Notice of Completion with the Agency. Each Notice of Completion shall be submitted on a form provided by the Agency, and shall specify the date upon which operation of the stationary source has commenced or will commence.

SECTION 9.03: (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:
(1) Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or
(2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).
(b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.
(c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.

SECTION 9.09: General Particulate Matter (PM) Standard. It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:
Equipment Used in a Manufacturing Process: 0.05 gr/dscf @7% O_2

SECTION 9.11: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

SECTION 9.13: It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

SECTION 9.15: It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:

(1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
(2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;
(3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
(4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.

SECTION 9.16(c): General Requirements for Indoor Spray-Coating Operations. It shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating inside a structure, or spray-coating of any motor vehicles or motor vehicle components, unless all of the following requirements are met:
(1) Spray-coating is conducted inside an enclosed spray area;
(2) The enclosed spray area employs either properly seated paint arresters, or water-wash curtains with a continuous water curtain to control the overspray; and
(3) All emissions from the spray-coating operation are vented to the atmosphere through an unobstructed vertical exhaust vent.

REGULATION I, SECTION 9.20(a): It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.

Washington State Administrative Code

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

WAC 173-400-040(4): Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

(a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

WAC173-400-111(7): Construction limitations.

(a) Approval to construct or modify a stationary source becomes invalid if construction is not commenced within eighteen months after receipt of the approval, if construction is discontinued for a period of eighteen months or more, or if construction is not completed within a reasonable time. The permitting authority may extend the eighteen-month period upon a satisfactory showing by the permittee that an extension is justified.

Federal

40 CFR 60.50a(c): Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:
(1) Notifies the Administrator of an exemption claim; and
(2) Provides data documenting that the unit qualifies for this exemption.

Part 40 CFR *241SOLID WASTES USED AS FUELS OR INGREDIENTS IN COMBUSTION UNITS*
40 CFR 241.4(a): The following non-hazardous secondary materials are not solid wastes when used as a fuel in a combustion unit:
(1)Scrap tires that are not discarded and are managed under the oversight of established tire collection programs, including tires removed from vehicles and off-specification tires.

I. PUBLIC NOTICE

This project does not meet the criteria for mandatory public notice under WAC 173-400-171(3). Criteria requiring public notice includes, but is not limited to, a project that exceeds emission threshold rates as defined in WAC 173-400-030 (e.g. 40 tpy NOx, VOC, or SO_2, 100 tpy CO, 15 tpy PM_{10}, 10 tpy $PM_{2.5}$, 0.6 tpy lead), includes a WAC 173-400-091 synthetic minor limit, has a toxic air pollutant emission increase above the acceptable source impact level in WAC 173-460-150, or has significant public interest. A notice of application was posted on the Agency's website for 15 days. No requests or responses were received. A copy of the website posting is below:

New Construction Projects

Company	Address	Project Description	Date Posted	Contact Engineer
Ash Grove Cement Company	3801 E Marginal Way S, Seattle, WA 98134	Increase percentage of fuel that can be whole tires..	6/4/24	Carl Slimp

A public comment period and hearing on the draft Order of Approval and concurrent draft Operating Permit revision were conducted. The comment period started on December 10, 2024, and ended on March 4, 2025. A public hearing was held via Zoom on March 3, 2025.

The comments received and the Agency's responses to those comments are included below, in Section K.

J. RECOMMENDED APPROVAL CONDITIONS

Standard Conditions:

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at

the installation address in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Specific Conditions:

3. Ash Grove shall measure and record, each calendar day, the total weight of whole tires injected as non-hazardous secondary material fuel as defined by 40 CFR 241.4(a)(1).

4. Ash Grove shall submit a Fuel Monitoring Plan for injection of whole tires within 60 days after this approval. The plan shall contain the method for complying with condition 3, the replacement fuel composition (i.e., Btu content, percent ash, etc.), and the maximum rate of whole tires that will be used. The rate established in this submitted plan will become the new allowable maximum TDF firing percentage and will be the tire injection rate required during the testing for conditions 5, 7 and 9.

5. Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall complete a study to determine if this operational change results in an increase in the emission rate of metallic TAPs listed in WAC 173-460-150. The metals to be tested include arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium. Ash Grove shall submit a test plan that includes fuel rates for each condition. Tests will be in accordance with EPA Method 29, and the methodology for determining if there is an increase in emissions of a pollutant will be in accordance with Appendix C to 40 CFR Part 60. Based on the results of this test, one of the following two conditions shall take effect:

    a. If the study shows that modification does not lead to an increase in emissions of any tested TAP, the maximum rate of whole tires that will be used as defined in the Fuel Monitoring Plan required in condition 4 shall replace the previously established permitted tire consumption rate.
    b. If the study shows that this modification results in an increase in the emission rate to the atmosphere of any TAP, then the previous established rate 30% TDF by weight, daily average limit shall remain in place.

    A limit of 30% TDF by weight, daily average limit shall remain in effect until the results of this study are reported, except for the days needed to conduct this study. During the days of this study, the TDF limit shall be defined in the fuel monitoring plan required by condition 4.

6. Ash Grove shall submit an Emission Monitoring Plan within 60 days after this approval. The plan shall contain the following elements:
    a. Measurement methods, analytical procedure and testing dates for demonstrating compliance with the requirements of 40 CFR 63.1343(b)(1).
    b. The measurement methods shall include a combination of Continuous Emission Rate Monitoring Systems, Continuous Emission Monitoring Systems and source tests to show compliance with 40 CFR 60 subpart F and 40 CFR 63 Subpart LLL.

7. Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct source tests to demonstrate compliance with the following previously established emission limits:
    a. Kiln exhaust shall not exceed 0.30 lb of particulate per ton of feed (dry basis) except during SSM periods.
    b. Kiln exhaust shall not exceed 0.07 lb of particulate per ton of clinker except during SSM periods, per 40 CFR 63.1343(b)(1)
    c. Ash Grove shall not cause to be discharged into the atmosphere from the kiln exhaust Dioxin/Furan (D/F) exceeding 0.20 ng/dscm (TEQ) @ 7% O2. If the average temperature at the inlet to the baghouse during the D/F performance test is 400°F or less, this limit is changed to 0.40 ng/dscm (TEQ).

   Ash Grove shall conduct the tests at the maximum rate of whole tire injection specified in condition 4. These source tests shall use EPA Method 5 or EPA method 201 A (particulate) and EPA method 23 (dioxins/ furans). Ash Grove shall submit a report of the test results within 60 days of testing.

8. Ash Grove shall report any deviation from the fuel monitoring plan that represent a potential threat to human health or safety as soon as possible but no later than 12 hours after such a deviation is discovered. Ash Grove shall report other deviations in writing to Puget Sound Clean Air Agency Operating Permit Certification no later than 30 days after the end of the month during which the deviation is discovered.

9. Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct stack testing for hydrogen chloride per EPA Method 26 or 26A in accordance with PSCAA Regulation I 3.07. Ash Grove shall conduct the tests at the maximum rate of whole tire injection specified in condition 4 and shall use the tests to calculate a facility-specific emissions factor for HCl, in units of pounds of HCl per ton of clinker. The tests shall include three runs under raw-mill-up conditions, and three runs under raw-mill-down conditions.

10. This order of approval supersedes and cancels Order of Approval No. 5755, dated March 30, 1995.

K. CORRESPONDENCE AND SUPPORTING DOCUMENTS


5755.pdf

Several similar topics were raised in the public comments received. This section will respond to those topics collectively.

1. Unlimited tire burning

Many commenters raised concerns related to a perceived lack of limits on tire burning. In their view, this permit would allow for a large increase in tire consumption by Ash Grove, with no limit to the amount of tires burned.

Response:

As was noted on Page 7 of the worksheet, above, this permit does not authorize any modifications or upgrades to the tire feed system. It simply allows the tire feed system to be used up to its existing

physical capability. Additionally, while the main heat source for cement making is the main burner in the actual kiln, the tire feed system injects tires, via one conveyor belt, into the calciner section of the pyroprocessing system. The calciner is part of the large tower adjacent to the horizontal kiln. This configuration does not allow for tires to be the primary fuel, and this permit does not authorize any physical changes to this configuration. Due to these physical limitations, the maximum amount of fuel that can consist of tires is approximately 37%.

These comments did not result in any changes to permit conditions.

2. General opposition to the permit; Decision criteria and rationale for approving

Several commenters expressed general opposition to the project and urged the Agency not to approve the request. Similarly, several commenters asked why the Agency is entertaining Ash Grove's request and what criteria the Agency used to determine whether to approve the request.

Response:

A facility may always submit an application for a permit, and if it meets all the standards and regulations, then the Agency is obligated to approve the request. WAC 173-400-113 states that the permitting authority "shall issue an order of approval if it determines that the proposed project satisfies" the applicable requirements. If the Agency determines that a proposed project meets the applicable requirements of WAC 173-400 and WAC 173-460 (i.e., the project employs Best Available Control Technology and passes review of Toxic Air Pollutants), and the Agency determines through SEPA review that the project will not have a significant environmental impact, the Agency is obligated to approve the project.

The Agency rules and regulations outlining this process can be found at the following web address: https://pscleanair.gov/219/PSCAA-Regulations. More detail is also included in WAC 173-400 and WAC 173-460.

These comments did not result in any changes to permit conditions.

3. Renewable energy and other fuels

Several commenters stated that Ash Grove should be required to use renewable and/or non-polluting fuels.

Response:

The Agency is unaware of any sort of electric or non-polluting cement kiln in existence. Cement kilns require temperatures greater than 2000 degrees F, which cannot readily be achieved using electric heat. Given current technologies, cement kilns cannot use electricity as their main heat source, which therefore precludes the use of solar or wind power. In this case, tire-derived fuel offsets fossil fuels that would otherwise be used. Additionally, this permit action does not raise the permitted production rate of the plant.

This comment did not result in any changes to permit conditions.

4. Increase in emissions; toxicity of tire burning emissions

Multiple commenters requested that this permit not lead to an increase in air pollution emissions. Some of these comments focused on criteria pollutants such as particulate matter, sulfur dioxide, or nitrogen oxides, while others focused on toxics such as metals or organics. One commenter submitted supplemental information about emissions from tires burned in kilns. One commenter stated that the Agency's review of the project did not include actual New Source Review, as required under WAC 173-400 and WAC 173-460, for all increasing pollutants.

Response:

The Agency considered emissions from criteria pollutants separately from emissions of toxic air pollutants.

Criteria Pollutants

The Agency discussed its determination that there will be no increase in criteria pollutants associated with tire burning on Pages 5 and 7 of the worksheet. However, the Agency will address this in more detail, in light of the comments received.

Most of the studies to date on the use of tires at cement kilns have focused on criteria pollutants. The studies and fact sheets mentioned on Page 5 of the worksheet, above, stated that criteria pollutant emissions do not increase when tires are used as fuel, though these largely used coal as the primary kiln fuel. The Agency also considered the analysis of tires performed by the EPA and published in "Air Emissions from Scrap Tire Combustion" in October 1997, in the document EPA-600/R-97-115. This article was submitted to the Agency by a commenter. Several types of industry were studied in this document. Only a couple are applicable to this permit. A cement kiln, (facility I) which did two tests of 0% TDF and 9-10% TDF showed a decrease in emissions. It is noted that both coal and natural gas were used, but did not specify the ratio. Those tables are shown below:

Table A-9a. Facility I - Cement Kiln

Source Description

Facility Name, Location:	Ash Grove Cement Durkee, OR
Facility Type:	Cement Plant
Source Type:	Cement Kiln
Test Dates:	October 18 - 20, 1989
Other fuel(s):	Natural gas and coal
Air pollution control device(s) used:	ESP
Test Conditions:	Unknown
Test Methods:	Unknown
Fuel Handling/Feeding:	Unknown
Testing Company:	Unknown
Environmental Agency:	Oregon DEQ
Reference:	Clark, et al (1991)

Source Test Data Evaluation

	Yes	No	Unknown
Data Expressed in Emission Factor Form	some		
Baseline Fuel Test Data Available	X		
Accurate Fuel Feed Rates		X	
Multiple Baseline Fuels	X		
Test Witnessed by or Prepared for Governmental Agency	X		

Table A-9b. Facility I - Cement Kiln

Pollutant		Baseline, 0% TDF	9-10% TDF	% Change
Particulate	g/MJ	0.417	0.382	-8
	lb/MMBtu	0.969	0.888	-8
SO_2	g/MJ	0.119	0.0950	-20
	lb/MMBtu	0.276	0.221	-20
CO	ppm	0.046	0.036	-27
Aliphatic compounds	g/MJ	0.00047	0.0004	-18
	lb/MMBtu	0.0011	0.0009	-18
Nickel	ug	30	ND	NA
Cadmium	ug	3.0	2.0	-33
Chromium	ug	30	ND	NA
Lead	ug	ND	ND	NA
Zinc	ug	35	35	0
Arsenic	ug	0.2	0.2	0
Chloride	kg/hr	0.122	0.0895	-26
	lb/hr	0.268	0.197	-26
Copper	ug	37	13	-65
Iron	ug	400	200	-50

ND = Not detected.
NA = Not applicable.

TABLE 17. PROXIMATE AND ULTIMATE ANALYSIS OF RKIS TEST TDF

Proximate Analysis	
Moisture	0.84%
Volatile Matter	65.52%%
Ash	7.20%
Fixed Carbon	26.44%
Ultimate Analysis	
Moisture	0.84%
Carbon	76.02%
Hydrogen	7.23%
Kjeldahl Nitrogen l Nitrogen Nitro	0.34%
Sulfur	1.75%
Total Halogens (calculated as chlorine)	0.31%
Ash	7.20%
Metals	
Cadmium	<5 ppm
Chromium	<5 ppm
Iron	295 ppm
Lead	51 ppm
Zinc	2.14%
Heating Value	37,177 kJ/kg

One commenter included a concern that emissions of SO_2 could increase, due to the sulfur content of tires. The ultimate fuel analysis provided did show that tires can contain 1.75% sulfur. It is worth noting that coal can be 0.2 to 5% sulfur (although natural gas contains less). At power plants that burn fuels that are high in sulfur, such as coal, flue gas desulfurization (FGD), commonly referred to as a "scrubber", is frequently used to capture SO_2 from stack gases. The main material used to capture sulfur in a FGD system is limestone, which reacts with SO_2 and effectively removes it from the gas phase, sequestering it into a gypsum-like reaction product. Limestone is the main ingredient in cement, and the high throughput of limestone through a cement kiln essentially makes the pyroprocessing system an effective scrubber for SO_2. The site-specific Ash Grove study on Page 7 showed results of SO_2 emissions going down. Additionally, Ash Grove continuously monitors SO_2 emissions.

The study performed at this Ash Grove facility, summarized on Page 7, above, showed that criteria pollutant emissions will not increase with increased permitted tire usage. The additional information provided by commenters, along with the air pollution controls and continuous emissions monitors already in place, further establish that criteria pollutant emissions will not increase with this project.

These comments did not result in any changes to permit conditions related to criteria air pollutants.

Toxic Air Pollutants

To analyze the changes in emissions of toxic air pollutants, the Agency used data from the same EPA study submitted by a commenter.

Hydrogen Chloride (HCl)
First the Agency reviewed HCl emissions.

Ash Grove currently uses about 255 MMBtu/hr of fuel. 180 MMBtu/hr is used at the Main Burner. 75 MMBtu/hr is used at the calciner, which is the only location designed to receive tires. Currently, Ash Grove can use up to 60 MMBTU/hr there, so the project entails a 15 MMBtu/hr increase of tires.

1 kJ = 9.4782E-7 MMBTU
1 kg =2.204 lb

To convert this heat input rate to the increase in weight of tires fed:
37,177 kJ/kg * (9.4782E-7 MMBTU/kJ) * (1 kg/2.204 lb/hr)/(0.0160 MMBTU/lb) = 938 lb/hr increase of tires used.

In a conservative estimate, we can ignore the presence of air pollution controls and assume all halogen atoms (from the proximate and ultimate analysis above, in Table 17, from the materials submitted by the commenter) in tires are chlorine, and that all chlorine in the tires will leave as HCl:

938 lb/hr * 0.0031 lb Cl/lb * (36.4 lb HCl / 35.4 lb Cl) = 2.99 lb HCl/hr

This is significantly above the SQER for HCl, which is 0.67 lb/day. The next step is to model the emissions using Aerscreen to conservatively model the ambient impact against the acceptable source impact level (ASIL), which is listed as 9.0 ug/m^3 for HCl. When modeled with Aerscreen, the ambient impact is 0.15 ug/m^3. The modeling files are saved with in this permit folder.

As was noted above, this calculation assumes no control equipment. In practice, however, the limestone used to make cement is a natural absorber of acid gases. Activated carbon is also injected into the system, primarily for mercury control, but this can also provide some degree of HCl capture. However, at an increase of 2.99 pounds per hour of chlorine fed to the calciner, this could lead to a theoretical increase of 13 tons of HCl annually, if there were no inherent or add-on pollution controls. While the inherent dry scrubbing due to the presence of limestone will likely prevent emissions of this additional HCl, the Agency will require an EPA method 26A test for HCl to determine a new facility-specific emissions factor for HCl, under both raw-mill-on and raw-mill-off conditions, and to ensure that Ash Grove remains an area source for HAP after this change.

The Agency conducted the ambient HCl modeling analysis discussed above under the assumption that none of the chlorine fed to the pyroprocessing system is captured by the limestone and raw materials fed to the kiln, which is an extremely conservative assumption.

Ash Grove provided data on the current chlorine content of the input streams. The summary is shown below, while the supporting information is saved with this worksheet. The context of the data is that the chlorine from the limestone and the slag input streams are currently 68 times higher than the

chlorine coming from the TDF input, which also works out to about 98.5% of the total chlorine going into the system

	Limestone	Slag	TDF
Average chlorine (%)	0.434%	0.100%	0.31%
Volume (t/h)	107.0	2.7	2.21
Chlorine (t/h)	0.465	0.003	0.007
Chlorine ratio	68.3		

SO_2 correlation to TDF input was also looked at. When outlet concentrations of SO_2 are graphed compared to varying rates of TDF, no correlation is apparent.

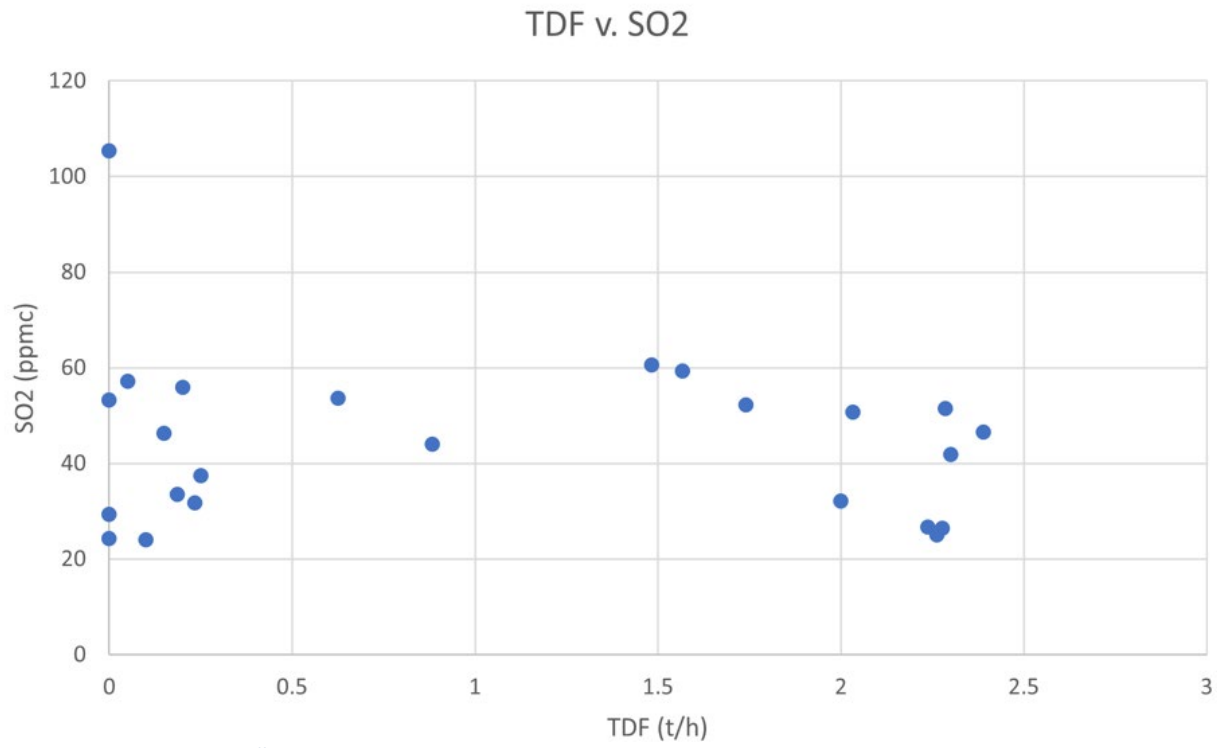


Figure 1 SO2 vs TDF Raw Mill Down

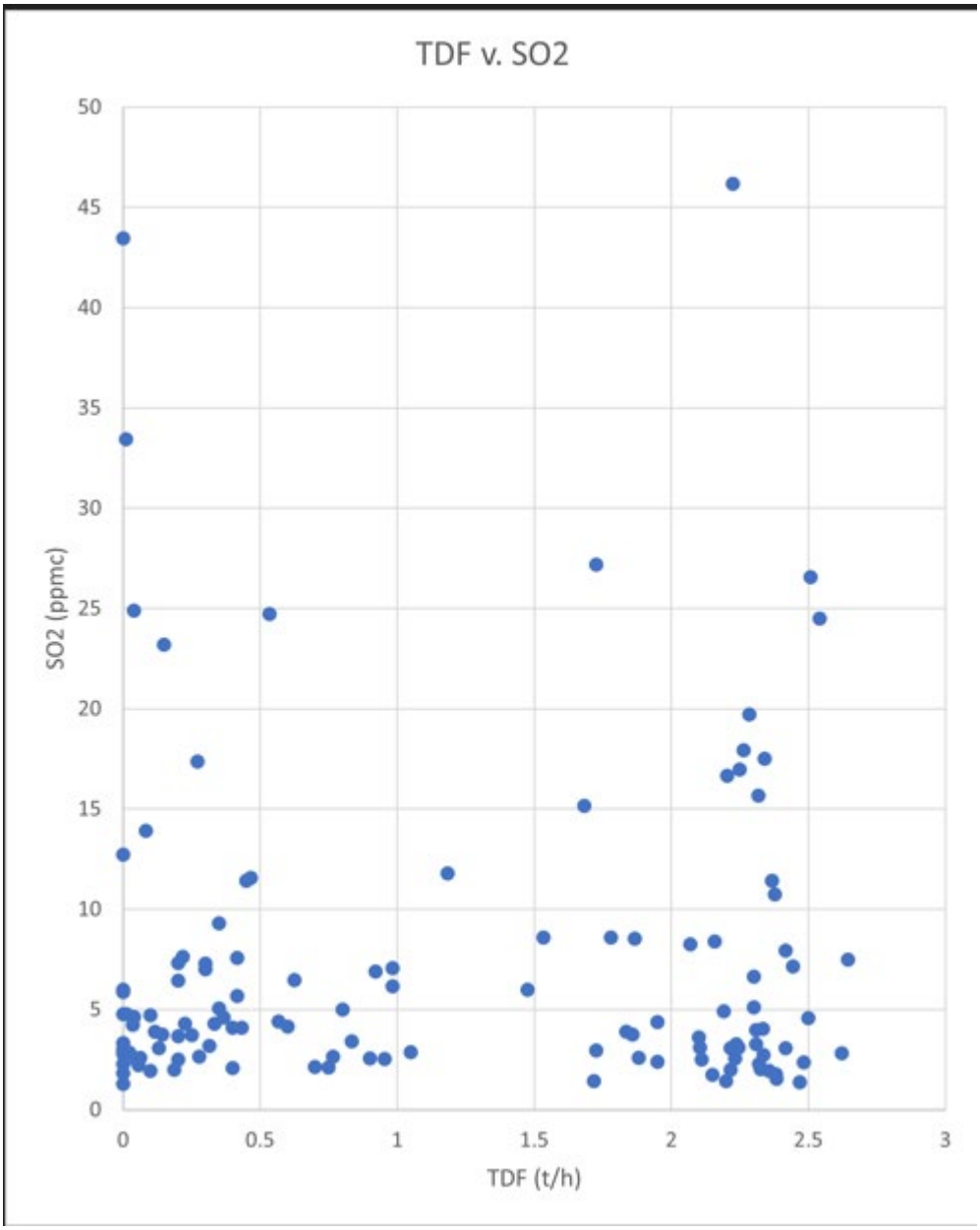


Figure 2 SO2 vs TDF Raw Mill Up

The Agency has determined that in practice this extra amount of chlorine will likely be captured within the pyroprocessing system and emissions control system and not emitted. Because of this lack of increase in HCl emissions, the Agency will not evaluate BACT for HCl for this project.

Table A-10b. Facility J - Cement Kiln

Pollutant	Baseline, 100% Coal, 0% TDF		11% TDF			14% TDF		
	10^{-6}g/MJ	10^{-6}lb /MMBtu	10^{-6}g/MJ	10^{-6}lb /MMBtu	% Change	10^{-6}g/MJ	10^{-6}lb /MMBtu	% Change
Acenaphthalene	1.19	2.76	0.864	2.01	-27	0.886	2.06	-26
Acenaphthylene	0.095	0.22	ND	ND	-100	ND	ND	-100
Anthracene	1.06	2.46	ND	ND	-100	ND	ND	-100
Benzo(b)anthracene	4.25	9.88	ND	ND	-100	ND	ND	-100
Benzoic Acid	4.498	10.46	ND	ND	-100	ND	ND	-100
Benzo(a)pyrene	0.877	2.04	ND	ND	-100	ND	ND	-100
Benzo(g,h,i)perylene	ND	ND	1.34	3.11	NA	4.442	10.33	NA
Bis(2-chloroethoxy)methane	95.641	222.42	74.583	173.45	-22	118.57	275.75	+24
Butyl Benzyl Phthalate	2.57	5.98	ND	ND	-100	ND	ND	-100
Dibenz(g,h)phthracene	45.877	106.69	20.50	47.67	-55	28.88	67.17	-37
Di-N-Butylphthalate	0.959	2.23	ND	ND	-100	ND	ND	-100
1,2-Dichlorobenzene	1.38	3.21	ND	ND	-100	ND	ND	-100
2,4-Dinitrotoluene	5.749	13.37	4.29	9.97	-25	3.87	9.00	-33
Fluorene	3.29	7.65	3.02	7.03	-8	3.06	7.12	-7

(Continued)

Table A-10b. Facility J - Cement Kiln (Cont.)

Pollutant	Baseline, 100% Coal, 0% TDF		11% TDF			14% TDF		
	10^{-6}g/MJ	10^{-6}lb /MMBtu	10^{-6}g/MJ	10^{-6}lb /MMBtu	% Change	10^{-6}g/MJ	10^{-6}lb /MMBtu	% Change
Hexachlorobenzene	31.60	73.49	17.38	40.42	-45	22.99	53.46	-27
Naphthalene	146.20	340.00	76.944	178.94	-47	68.456	159.20	-53
2-Nitroanaline	2.01	4.67	ND	ND	-100	2.16	5.02	+7
N-Nitrosodiphenyl-amine	39.05	90.81	20.47	47.60	-48	21.47	49.92	-45
Pyrene	2.14	4.97	1.02	2.38	-52	0.959	2.23	-55
1,2,4-Tricholrobenzene	7.504	17.45	1.11	2.57	-85	ND	ND	-100
4,6-Dinitro-2-methylphenol	2.38	5.53	ND	ND	-100	ND	ND	-100
4-Methyl Phenol	8.407	19.55	3.93	9.13	-53	6.570	15.28	-22
2-Nitrophenol	83.846	194.99	72.747	169.18	-13	74.012	172.12	-12
4-Nitrophenol	ND	ND	21.34	49.62	NA	12.80	29.77	NA
Pentachlorophenol	ND	ND	ND	ND	NA	ND	ND	NA
Phenol	140	32	69.247	161.04	-50	131.89	306.71	-4
2,4,5-Trichlorophenol	ND	ND	ND	ND	NA	ND	ND	NA

NA = Not applicable.
ND = Not detected.

TAP Metals

This EPA study, “Air Emissions from Scrap Tire Combustion” in October 1997, in the document EPA-600/R-97-115, looked at a pilot-scale 73 kW (250,000 BTU/hr) rotary kiln incinerator simulator (RKIS). In this case, the metals are predicted to go up linearly, but, importantly, the study does not take into account any control devices. The baghouse on the main kiln stack that controls particulate should also control an increase in metals. The results of this study are shown below.

TABLE 19. ESTIMATED EMISSIONS OF METALS - RKIS TEST RESULTS (BASE FUEL - NATURAL GAS)

Metal	0% TDF (Natural Gas Only)		17% TDF (steady-state)		TDF Only (estimated)	
	ng/J	lb/MMBTU	ng/J	lb/MMBTU	ng/J	lb/MMBTU
Antimony	7.72E-05	1.80E-07	9.05E-04	2.10E-06	5.32E-03	1.24E-05
Arsenic	4.80E-04	1.12E-06	1.59E-02	3.70E-05	9.35E-02	2.17E-04
Beryllium	nd	nd	2.14E-05	4.98E-08	1.26E-04	2.93E-07
Cadmium	1.76E-04	4.09E-07	4.54E-04	1.06E-06	2.67E-03	6.21E-06
Chromium	2.78E-04	6.46E-07	1.66E-03	3.86E-06	9.76E-03	2.27E-05
Lead	3.45E-03	8.02E-06	2.83E-02	6.58E-05	1.66E-01	3.86E-4
Manganese	1.21E-03	2.81E-06	2.48E-03	5.77E-06	1.46E-02	3.40E-05
Nickel	3.00E-04	6.98E-07	1.50E-03	3.29E-06	8.82E-03	2.05E-05
Selenium	3.56E-04	8.28E-07	1.93E-03	4.49E-06	1.14E-02	2.65E-05
Zinc	1.23E-01	2.86E-04	15.21	3.54E-02	89.47	2.08E-01

From this data, we can roughly estimate the emission increase of each metal for an increase from 30% to 37% in the proportion of fuel consisting of tires. As was noted above, the study that derived these emissions factors did not use any control devices. In AP-42, Table 11.6-3, EPA states that a 99.9% decrease in particulate emissions can be expected from a baghouse. The Agency assumed a significantly lower 99% control efficiency in this analysis. Aerscreen was run with a factor of 1 g/s, and scaled to the emission factors calculated above. All pollutants have modeled concentrations below the ASIL. These results are shown below.

TDF Amount	Arsenic	Beryllium	Cadmium	Chromium	Lead	Manganese	Nickel	Selenium
0	0 00000112	0	4 09E-07	0 000000646	0 00000802	0 00000281	0 000000698	0 000000828
0 17	0 000037	4 98E-08	1 06E-06	0 00000386	0 0000658	0 00000577	0 00000329	0 00000449
1	0 000217	2 93E-07	6 21E-06	0 0000227	0 000386	0 000034	0 0000205	0 0000265
Equation	0 0002x + 7E-07	3E-07x - 5E-1	6E-06x + 2	2E-05x + 4E-07	0 0004x + 5E-06	3E-05x + 2E-06	2E-05x + 3E-07	3E-05x + 5E-07
30%	0 0000607	8 9995E-08	0 000002	0 0000064	0 000125	0 000011	0 0000063	0 0000095
37%	0 0000747	1 11E-07	2 42E-06	0 0000078	0 000153	0 0000131	0 0000077	0 0000116
Per an email 3/27, Ash Grove uses about 255 MMBTU/hr								
Increase/hr	0 00357	5 355E-06	0 000107	0 000357	0 00714	0 0005355	0 000357	0 0005355
increase/year	31 2732	0 0469098	0 938196	3 12732	62 5464	4 69098	3 12732	4 69098
Increase After 99% control/year	0 312732	0 0004691	0 009382	0 0312732	0 625464	0 0469098	0 0312732	0 0469098
SQER	4.90E-02	6.80E-02	3.90E-02	5.00E+00	1.40E+01	2.20E-02	6.20E-01	1.50E+00
Time frame	year	year	year	24-hr	year	24-hr	year	24-hr
Increase 24-hr				0 008568		0 012852		0 012852
Increase After 99% control/y24-hr				0 00848232		0 01272348		0 01272348

After assuming 99% control efficiency, only arsenic exceeded the SQER. This was then modeled in Aerscreen, with the results shown below. The modeling file was saved with the worksheet.

	Input (lb/hr)	Input (g/s)	Result (ug/m3)	ASIL
Model	N/A	1.00E+00	1.15E-01	
Arsenic	3.57E-05	2.83E-04	3.26E-05	3.00E-04

This mass balance-based approach shows that using the emissions factors provided by the commenter, there will be no exceedance of an ASIL for metallic TAPs.

The modeling analysis above relied on emissions factors from one pilot-scale study. In reality, the change in emissions of metal TAPs could differ from what was included in this analysis. In order to establish whether or not there is an increase in emissions of metal TAPs due to the increase in permitted tire consumption rate, the Agency will require Ash Grove to conduct tests of emissions of metal TAPs before and after implementing the higher tire feed rate. Metals to be tested include arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium, which are all TAPs listed in WAC 173-460-150. Tests will be in accordance with EPA Method 29, and the methodology for determining if there is an increase in emissions of a pollutant will be in accordance with Appendix C to 40 CFR Part 60.

If it is determined that no significant increase in these TAPs occurs, Ash Grove shall be able to increase the rate of TDF used to match the new Fuel Monitoring Plan required by this permit. If this testing methodology determines that there is an increase in any tested TAP metal, the 30% TDF by weight per day limit shall remain in effect. Until the results of this study is reported, Ash Grove shall limit TDF use to 30% of total fuel by weight per day, except to perform this study.

Organic TAPs

One other class of toxic air pollutant emitted from cement production is organic TAPs. Emissions of VOC or hydrocarbons can be used as a proxy for organic TAPs. The table on Page 17, above, showed that "aliphatic compounds," a type of VOC, decreased when tires were substituted for fossil fuel. Additionally, the extremely high combustion temperatures (over 2000 degrees F) are very effective at destroying organic molecules. For these reasons, the Agency has determined that there will be no increase in emissions of organic TAPs. These comments did not result in any changes to permit conditions related to organic TAPs.

5. Open burning of tires

One commenter submitted supplemental information regarding emissions from open burning of tires, along with information about emissions from tires burned in kilns.

Response:
The burning of tires in a well-controlled cement kiln or calciner is very different from open burning. The strongly odorous black smoke associated with open burning of tires is not associated with burning of tires in the cement-making process. The optimal combustion conditions and air pollution controls prevent the smoke emissions that are associated with open burning.

This comment did not result in any changes to permit conditions.

6. 6PPD-quinone and salmon

One commenter noted that 6PPD-quinone is highly detrimental to salmon. 6PPD-quinone forms from 6PPD, which is an additive to tires that helps them from degrading in the presence of atmospheric

ozone. After reviewing the articles presented, there is a concern of 6PPD-quinone getting into water streams. However, the method of transfer in the articles provided was determined to be roadway run-off as rain washed away the built-up tire particles from the mechanical wear of driving.

Response:
While the Agency could not locate data on the fate of 6PPD-quinone from tires burned at cement plants, it stands to reason that combustion in the extremely high temperatures in the pyroprocessing system would effectively destroy molecules of 6PPD-quinone. This is consistent with the use of incineration as a common mitigation method for organic pollutants. Additionally, the baghouse is a very effective emissions control for pollutants that may be in an aerosol form.

This comment did not result in any changes to permit conditions.

7. Concerns about the time of the hearing, public outreach, lack of transparency and process concerns
Several commenters raised concerns about a perceived lack of transparency regarding the permitting process, a perceived lack of public engagement, and an inconvenient hearing time.

Response:
The comment period started December 10, 2024. On this date, the public notice was published in the *Seattle Times* and the *Daily Journal of Commerce* and on the Agency website. Notice was also emailed to the Agency's Permit Actions email list, which has approximately 1400 subscribers. Because this action includes an Operating Permit modification, notice was also published in the Washington state Permit Register on December 10, 2024.

On December 18, 2024, the Duwamish River Community Coalition requested an extension of the comment period; the next day, the Agency extended the comment period to February 14, 2025. Notice of this extension was published on the Agency website on December 19, 2024, and notice was emailed to the Permit Actions email list on the same date. Notice of the extension ran in the *Seattle Times* and the *Daily Journal of Commerce* on December 23, 2024.

The Agency then received multiple requests for a hearing on the draft permits. On January 28, 2025, the Agency scheduled the public hearing for March 3, 2025, and extended the comment period through March 4, 2025. Notice of this extension was published on the Agency website on January 28, 2025, and notice was emailed to the Permit Actions email list on the same date. Notice of the extension ran in the *Seattle Times* and the *Daily Journal of Commerce* on the same date.

The draft permit, application materials, and supporting documents used in evaluating the proposed project were posted on the Agency website for the duration of the comment period.

The Agency held the hearing online from 4 PM to 6 PM, and the hearing was not concluded early, even when no further attendees indicated an interest in commenting. The Agency intentionally chose a time specifically to be available to people who are attending either as part of the traditional work day, or on their own time.

This process met all applicable requirements from Agency Regulation I, Article 6, and the provisions of WAC 173-400-171 that are adopted by reference, related to public notice for minor new source review

under the Notice of Construction program. The process also met all applicable requirements in WAC 173-401-800 related to public involvement for Air Operating Permit issuance.

The Agency encourages anyone interested in learning about public comment periods for permits to sign up for the Permit Actions email list on the Agency website. All Agency email lists can be joined at this same web address. The Agency also notes that, while it attempts to schedule hearings at times that maximize attendance, comments on permits may also be submitted in writing. Comments delivered at a hearing are not given more weight than written comments.

These comments did not result in any changes to permit conditions.

8. Violations should be reported to the community
Several commenters requested that all violations by Ash Grove be reported to the community.

Response:
Ash Grove measures several pollutants in real time and provides monthly reports about the measurement systems compliance with emissions limits to the Agency. Ash Grove also submits annual reports of emissions and semi-annual and annual compliance certifications. Each of these reports is reviewed by the Agency to determine if the facility is in compliance with the applicable requirements. These reports are all available to the public through records requests. The Agency's records request process is summarized on its website: Records Request | Puget Sound Clean Air Agency, WA.

Compliance history is also available through US EPA's ECHO database: Enforcement and Compliance History Online | US EPA

These comments did not result in any changes to permit conditions.

9. Cumulative impact in overburdened community
Several commenters noted that levels of some air, water, and soil pollutants are already elevated in the Duwamish Valley compared to other nearby areas. They requested that the Agency review the cumulative impacts of this increase in tire consumption in light of the existing pollution burden in the area. Commenters also cited the prevalence of childhood asthma in the Duwamish Valley. Some stated this project would make the cumulative burden worse.

Response:
The scope of this project review is the incremental increase in permitted tire feed to the pyroprocessing system from the current limit of 30% of fuel up to the maximum the existing tire feed system can process, which is approximately 37%.

The Agency, above, determined the impacts of the project on emissions and ambient air. The Agency determined that the project will not increase emissions of criteria pollutants (See item 4, above). If there is no increase in emissions, then there can be no concomitant change in asthma or in other health impacts (cumulative or otherwise) from those emissions.

The Agency also calculated the increase in toxic air pollutant emissions (See item 4, above). For all TAPs modeled, the increase in ambient concentrations was an order of magnitude below the level the Department of Ecology has deemed acceptable in WAC 173-460. Given how far below the ASIL thresholds these modeled concentrations are, there should be no appreciable impacts on health or on the cumulative burden of pollution from the emissions associated with this project.

These comments did not result in any changes to permit conditions.

10. Ash Grove should continuously monitor emissions and make emissions data public

Several commenters stated that Ash Grove should continuously monitor pollutant emissions and make those emissions public.

Response:
Ash Grove is equipped with continuous monitors for emissions of nitrogen oxides, sulfur dioxide, carbon monoxide, mercury, total hydrocarbons, and opacity, and a continuous parameter monitoring system for particulate matter. Ash Grove is also required to conduct periodic stack tests for particulate matter and dioxin/furan. Continuous monitors must meet the requirements of the applicable federal regulations and of Agency Regulation I, Article 12. Ash Grove submits a monthly summary report to the Agency of monitor downtime and emissions limit exceedances. The Agency reviews these reports and, if warranted, follows its compliance and enforcement procedures. All of these reports are available from the Agency via a public records request.

Ash Grove also submits annual reports of emissions to the Agency, in accordance with Regulation I, Article 7. These reports include the annual emissions of any pollutants that are emitted over the various reporting thresholds. This information is also available through a public records request to the Agency, and it is reported to the US EPA for inclusion in the National Emissions Inventory.

These comments did not result in any changes to permit conditions.

11. Adequacy of previous testing

Several commenters stated that the information supplied by Ash Grove was not sufficient for this permitting action. Several stated that the short-duration study at Ash Grove was not sufficient to establish that emissions would not increase with increased tire burning. Some said that Ash Grove should have been required to conduct additional testing to establish these emissions factors before the Agency would consider issuing the requested permit.

Response:
The test data from Ash Grove was not received in isolation. The studies noted on Pages 5 and 7 of the worksheet, and the documents provided by a commenter, showed that criteria pollutant emissions do not increase when tires are used as fuel in cement making. Together, this information established that there will not be an increase in criteria pollutant emissions for this project. The EPA also has done its own testing and research and determined the TDF is an acceptable fuel alternative in Portland Cement Kilns. A link to that determination is included in the tBACT determination in section D.

Additionally, until this operating permit revision is issued as a final permit, Ash Grove is limited to the 30% daily limit on tire consumption. Until a revised Air Operating Permit is issued, Ash Grove may not exceed the 30% daily limit, which means that the facility is prohibited from operating in a way that would enable the type of testing the commenters are seeking.

Finally, as was stated earlier, no emission limits are being raised by this permit, and Ash Grove continuously monitors emissions of many pollutants.

The information submitted by one commenter did cause the Agency to add requirements for testing of emissions of HCl and metal TAPs, as was noted in the response to Comment 4, above.

12. Sufficiency of civil penalties to deter noncompliance

One commenter stated that fines are not sufficient to deter violations, and that each violation should result in a mandatory one-week pause in facility operations.

Response:
Violations are subject to the Agency's civil penalty policies. Under Agency Regulation I, Section 3.11, the Agency may impose civil penalties up to approximately $25,000 per day of noncompliance. However, neither the state's Clean Air Act nor the Agency's regulations explicitly contemplate the idea of a forced temporary pause in facility operations as a direct consequence of noncompliance.

This comment did not result in any changes to permit conditions.

13. Impacts on breathing when odors from plant are present

One commenter with asthma stated that it is easily possible to "tell a difference in my breathing on days when I can smell more chemical scents from the plant".

Response:
The Agency's review (Comments 4 and 8, and worksheet Page 7) show that there is not expected to be an increase in emissions of the criteria pollutants (ozone precursors, nitrogen oxides, particulate matter) most associated with asthma as a result of this project. Additionally, as was discussed in the response to Comment 3, the very high temperatures of the kiln and pyroprocessing system effectively destroy the organic molecules that would potentially cause odors from this process.

If the commenter continues to detect odors from Ash Grove, the Agency has a mechanism for reporting odors. The rules for odors can be found here: Reg I, Article 9. The website to help file a complaint can be found here: File a Complaint | Puget Sound Clean Air Agency, WA.

This comment did not result in any changes to permit conditions.

14. Content of Air Operating Permit

One commenter noted that the draft Air Operating Permit revision did not include the current requirements of the Cement NESHAP in 40 CFR 63, Subpart LLL, the current requirements regarding

affirmative defense, or content from other recent Notice of Construction Orders of Approval. The commenter stated that the Air Operating Permit revision may not be issued without these.

Response:
Regarding the Air Operating Permit, this permitting action is not a renewal. A renewal would require that all applicable requirements, such as those mentioned by the commenter, be included in the permit. The Agency is currently drafting an Air Operating Permit renewal that will include all of these requirements. The Agency expects to issue a draft renewal permit, including all currently applicable requirements, for public comment in the coming weeks. However, the Agency also notes that Ash Grove is performing the testing, monitoring, recordkeeping, and reporting that are required by Subpart LLL and various Orders of Approval, even if they have not yet been incorporated into the operating permit document.

In contrast to a renewal, this permitting action is only a modification of the existing Air Operating Permit, in accordance with WAC 173-401-725. A modification is intended to make only a specific change, while leaving the rest of the permit intact. This modification is intended only to incorporate NOC OA 12003, related to the permitted tire feed rate. Incorporating the updated requirements of the NESHAP and the other items noted by the commenter will be part of the pending permit renewal, even though they were not part of this permit modification.

These comments did not result in any changes to permit conditions.

15. SEPA review
One commenter asserted that the Agency's SEPA review of environmental impacts was inadequate and that the Agency should have posted the applicant's environmental checklist for public review. The commenter states that if the Agency is going to rely on previous SEPA review and determinations, the Agency should explain how an increase in tire burning up "to 100% of the facility's power needs" was covered under the previous analysis.

Response:
The Agency is relying on the SEPA review and Determination of Non-Significance issued with NOC OA 5755, for the original installation of the tire feed system. This DNS was included among the materials available for review during the comment period.

The Agency has reviewed the SEPA checklist submitted by Ash Grove for NOC 5755 in November 1994. The checklist adequately covers the environmental impacts of the tire feed system, whether tires comprise 30% of the pyroprocessing system's fuel or 37%. The Agency has determined that there will be no increase in emissions of criteria pollutants, hydrogen chloride, or organic TAPs. The incremental increase in permitted tire feed to the kiln system does not change the adequacy of the checklist or the DNS. This is because of the minimal impact on emissions and air quality, as noted in this worksheet and in the responses to Comments 4 and 9, above. If the required testing shows that there is an increase in emissions of any tested metallic TAP, the permitted tire feed rate would revert to the previously permitted rate of 30% on a daily basis.

The commenter's assertion that this permit allows for Ash Grove to use tires for up to 100% of the kiln's heat input needs is mistaken. As was noted on Page 7 of the worksheet, this permit does not authorize

any modification to the existing tire feed system, and the system is only capable of providing approximately 37% of the heat input needs for the pyroprocessing system. Furthermore, because the tire feed system introduces tires to the calciner section of the pyroprocessing system (not the kiln itself), there is no physical manner in which cement could be made relying only, or even primarily, on tires as fuel.

The very small changes in emissions, noted in the worksheet above and in the response to Comment 4, together with the fact that the increase in permitted tire consumption is only from 30% of fuel to 37% of fuel, demonstrate that there will be no differences in environmental impacts compared to what was reviewed under the DNS for NOC OA 5755. The Agency's previous review of environmental impacts is adequate for this project, and the Agency will continue to rely on the previous review and DNS for the tire feed system under NOC OA 5755.

16. Exacerbates environmental racism and is contrary to environmental justice
Concern was raised that this permitting action would further impact the local area.

Response:
The scope of this project review is the incremental increase in permitted tire feed to the pyroprocessing system from the current limit of 30% of fuel up to the maximum the existing tire feed system can process, which is approximately 37%.

The Agency, above, determined the impacts of the project on emissions and ambient air. The Agency determined that the project will not increase emissions of criteria pollutants (See item 4, above). If there is no increase in emissions, then there can be no concomitant change in asthma or in other health impacts (cumulative or otherwise) from those emissions.

The Agency also calculated the increase in toxic air pollutant emissions (See item 4, above). For all TAPs modeled, the increase in ambient concentrations was an order of magnitude below the level the Department of Ecology has deemed acceptable in WAC 173-460. Given how far below the ASIL thresholds these modeled concentrations are, there should be no appreciable impacts on health or on the cumulative burden of pollution from the emissions associated with this project.

These comments did not result in any changes to permit conditions.

L. REVIEWS

Reviews	Name	Date
Engineer:	Carl Slimp	4/16/2024
Inspector:	Gerard Van der Jagt	4/16/2024
Second Review:	John Dawson	6/21/2024
Applicant Name:	Jeff Briggs	11/8/2024

Attachment 4

pscleanair.org
Puget Sound Clean Air Agency

AIR OPERATING PERMIT

Puget Sound Clean Air Agency
1904 3rd Avenue, Suite 98101-3317
Seattle, Washington 98101

Issued in accordance with the provisions of Puget Sound Clean Air Agency (previously known as Puget Sound Air Pollution Control Agency) Regulation I, Article 7 and Chapter 173-401 WAC.

Ash Grove Cement Company, Inc. is authorized to operate subject to the terms and conditions in this permit.

PERMIT NO.: 11339	**DATE OF ISSUANCE**: May 15, 2004 Significant Modification 1 – May 17, 2007 Administrative Amendment 1 – July 13, 2007 Administrative Amendment 2 – December 2, 2010 Administrative Amendment 3 – December 23, 2013 Administrative Amendment 4 – June 13, 2018 Administrative Amendment 5 – December 20, 2022 Significant Modification 2 – December 5, 2025
ISSUED TO:	**Ash Grove Cement Company, Inc.**
PERMIT EXPIRATION DATE: May 15, 2009	

SIC Code, Primary:	3241 Hydraulic Cement Manufacturing
NAICS Code	32731 Hydraulic Cement Manufacturing
Nature of Business:	Hydraulic Cement Manufacturing
Mailing Address:	3801 E Marginal Way South, Seattle WA, 98106-1599
Facility Address:	3801 E Marginal Way South, Seattle WA, 98106-1599
Responsible Official:	Andrew White, Plant Manager
Telephone No.:	(206) 694-6225 FAX No.: (206) 623-5355
Site Contact:	Allen Block, Environmental Manager
Telephone No.:	(206) 694-6232 FAX No.: (206) 623-5355

Puget Sound Clean Air Agency Approval:

Carl Slimp, P.E.
Permit Engineer

John Dawson, P.E.
Engineering Manager

TABLE OF CONTENTS

I. EMISSION LIMITS AND PERFORMANCE STANDARDS

The following tables list the citation for the "applicable requirement" in the second column. The third column (Date) contains the adoption or effective date of the requirement. In some cases, the effective dates of the Federally Enforceable Requirement and the State Only Requirement are different because only rules approved by EPA through Sections 110, 111, and 112 of the federal Clean Air Act are federally enforceable and either the state has not submitted the regulation to the EPA or the EPA has not approved it.

The first column is used as an identifier for the requirement, and the fourth (Requirement Paraphrase) column paraphrases the requirement. The first and fourth columns are for information only and are not enforceable conditions of this permit. The actual enforceable requirement is embodied in the requirement cited in the second and third columns.

The fifth column (Monitoring, Maintenance & Recordkeeping Method) identifies the methods described in Section II of the permit. Following these methods is an enforceable requirement of this permit. The sixth (Emission Standard Period) column identifies the averaging time for the reference test method. The last column (Reference Test Method) identifies the reference method associated with an applicable emission limit that is to be used if and when a source test is required. In some cases where the applicable requirement does not cite a test method, one has been added.

In the event of conflict or omission between the information contained in the fourth and sixth columns and the actual statute or regulation cited in the second column, the requirements and language of the actual statute or regulation cited shall govern. For more information regarding any of the requirements cited in the second and third columns, refer to the actual requirements cited.

A. FACILITY-WIDE APPLICABLE REQUIREMENTS

The requirements in this section apply facility-wide to all the emission units regulated by this permit, except as otherwise stated in a permit condition.

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Opacity Standards						
I.A.1	Puget Sound Clean Air Agency Reg I: 9.03(a)-(c)	3/11/99	Ash Grove shall not emit more than 20% opacity for a period or periods aggregating more than 3 minutes in any 1-hour period	II.A.1 General Opacity Monitoring	More than 3 min. in any 1 hr	Ecology Method 9A 7/12/1990 (See Section X)
I.A.2	WAC 173-400-040(1)	9/20/93	Ash Grove shall not emit more than 20% opacity for more than 3 minutes in any 1-hour period.	II.A.1 General Opacity Monitoring	More than 3 min. in any 1 hr	Ecology Method 9A 7/12/1990 (See Section X)
Particulate Standards						
I.A.3	Puget Sound Clean Air Agency Reg. I: 9.09	4/09/98	Ash Grove shall not emit particulate matter in excess of 0.05 gr/dscf from equipment used in a manufacturing process uncorrected for excess air	II.A.1 General Opacity Monitoring	(3) 1-hour runs	Puget Sound Clean Air Agency Method 5 (See Section X)
I.A.4	WAC 173-400-060 *This requirement* shall *be superseded by the 9/15/01 version of WAC 173-400-060 upon its adoption into the SIP* WAC 173-400-060 *(State Only) This requirement will become federally enforceable upon adoption into the SIP and will replace the 3/22/91 version of WAC 173-400-060.*	3/22/91 *9/15/01*	Ash Grove shall not emit particulate matter in excess of 0.10 gr/dscf from general process units, uncorrected for excess air	II.A.1 General Opacity Monitoring	(3) 1-hour runs	EPA Method 5 (40 CFR Part 60, Appendix A, July 1, 2002)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
I.A.5	Puget Sound Clean Air Agency Order of Approval No. 7381, Condition 4	6/6/01	PM-10 emissions from each baghouse except the main stack baghouse, shall not exceed 0.005 grains /dscf over a 24 hour period.	II.A.1 General Opacity Monitoring	24 hours	EPA Methods 5 or 201A (40 CFR Part 60, Appendix A, July 1, 2002; 40 CFR Part 51, Appendix M, July 1, 2001)
SO_2 Standards						
I.A.6	Puget Sound Clean Air Agency Reg I: 9.07 WAC 173-400-040(6) first paragraph only.	04/14/94 09/20/93	Ash Grove shall not emit SO_2 in excess of 1,000 ppmv (dry) corrected to 7% O_2 for fuel burning equipment	No monitoring required	(3) 1-hour runs	EPA Method 6C (40 CFR Part 60, Appendix A, July 1, 2002)
Nuisance Standards						
I.A.7	Puget Sound Clean Air Agency Reg I: 9.11(a) (*State Only*) WAC 173-400-040(5) RCW 70.94.040 (*State Only*) WAC 173-400-040(2) *(State Only)*	03/11/99 09/20/93 1996 9/15/01	Ash Grove shall not emit air contaminants in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property Ash Grove shall not deposit particulate matter beyond property boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of the property	II.A.2 Complaint Response II.A.3 Rooftop Inspections II.A.4 O&M Plan Inspections	NA	NA
I.A.8	WAC 173-400-040(4) *(State Only)*	9/15/01	Ash Grove shall use recognized good practice and procedures to reduce odors which may unreasonably interfere with any other property owners' use and enjoyment of their property	II.A.2 Complaint Response II.A.3 Rooftop Inspections	NA	NA

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Fugitive Dust Standards						
I.A.9	**RESERVED**					
I.A.10	**RESERVED**					
I.A.11	WAC 173-400-040(3)(a) WAC 173-400-040(8)(a) *These requirements* shall *be superseded by the 9/15/02 versions of SIP WAC 173-400-040(3)&(8) upon adoption into the SIP* WAC 173-400-040(3)(a) *(State Only)* WAC 173-400-040(8)(a) *(State Only)* *These requirements will become federally enforceable upon adoption into the SIP and will replace the 9/20/93 versions of WAC 173-400-040(3)&(8)*	9/20/93 9/20/93 9/15/01 9/15/01	Ash Grove shall take reasonable precautions to prevent the release of fugitive emissions and to minimize emissions of fugitive dust.	II.A.3 Rooftop Inspections II.A.4 O&M Plan Inspections	NA	NA
I.A.12	**RESERVED**					
I.A.13	Puget Sound Clean Air Agency Reg. I: 9.15(a)	3/11/99	Ash Grove shall not cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions.	II.A.3 Rooftop Inspections II.A.4 O&M Plan Inspections	NA	NA

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Operation and Maintenance Standards						
I.A.14	Puget Sound Clean Air Agency Reg. I: 9:20 RCW 70.94.152(7) (*State Only*)	6/09/88 1996	Ash Grove shall maintain equipment in good working order Equipment described in plans, specifications or other information submitted in support of a notice of construction application shall be maintained and operate in good working order	II.A.4 O&M Plan Inspections	NA	NA
I.A.15	Puget Sound Clean Air Agency Reg. I: 7.09(b)	9/12/96	Ash Grove shall develop and implement an O&M Plan to assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II and III NOTE: See EU 1.31 for 40 CFR Part 63 O&M plan requirements for the kiln	II.A.4 O&M Plan Inspections	NA	NA
Emissions from common stack						
I.A.16	WAC 173-400-040	09/20/93	Emissions from a common stack must meet the most restrictive standard of any of the connected emissions units	No monitoring required	NA	NA
HCl Standards						
I.A.17	Puget Sound Clean Air Agency Reg. I: 9.10(a) *(State Only)*	06/09/88	Ash Grove shall not emit HCl in excess of 100 ppm (dry) corrected to 7% O_2 for combustion sources	No monitoring required	(3) 1-hour runs	EPA Method 26 or 26A (40 CFR Part 60, Appendix A; July 1, 2002)
I.A.18	**RESERVED**					

NA = Not Applicable

B. EMISSION UNIT SPECIFIC APPLICABLE REQUIREMENTS

The requirements in Section I.B. apply only to the specific emission units cited; however, the requirements in Section I.A. also apply to those units, except as otherwise provided in this section.

1. Emission Unit #1 (EU-1): Rotary Cement Kiln, Main Stack and Coal Mills

This emission unit consists of a nominal 2400 ton/day capacity rotary Portland cement kiln, primarily fired with coal and natural gas, and controlled by a nominal 177,000 acfm baghouse. The main stack emissions are monitored for opacity, carbon monoxide, nitrogen oxides and sulfur dioxide emissions by a continuous emission monitoring system. Fuels include bituminous coal, whole tires, a small amount of internally generated waste lubricating oils and greases, and natural gas. Dust entrained in the flue gases is collected in the Fuller Baghouse.

Although most of the kiln emissions exit from the kiln/raw mill through the main stack, a small portion of the hot kiln exhaust gases are routed directly from the kiln exhaust to the coal mills for use in thermally drying coal prior to grinding. Each coal mill is controlled by a nominal 10,400 acfm baghouse. This emission unit includes the coal mills because a small portion of kiln exhaust gases vent to the atmosphere through the coal mill baghouse stacks.

Emission Unit (EU-1)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Opacity Standards						
EU 1. 1	**RESERVED**					
EU 1. 2	Puget Sound Clean Air Agency Reg. I: 9.04(c)(2)	04/09/98	Ash Grove shall not cause or allow the emission of any air contaminant (as determined by the COMS) from the kiln stack during any hour that contains any consecutive 6-minute period averaging greater than 20% opacity.	II.B.1 Continuous Opacity Monitoring System	6-minute period	EPA Performance Specification 1 (40 CFR 60, Appendix B, July 1, 1997) EPA Method 9 (40 CFR 60, Appendix A, July 1, 2002.
EU 1. 3	**RESERVED**					

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 4	Puget Sound Clean Air Agency Reg. I: 9.04(c)(1)	04/09/98	Ash Grove shall not cause or allow the emission of any air contaminant (as determined by the COMS) from the kiln stack during any hour that averages greater than 5% opacity for a one hour average.	II.B.1 Continuous Opacity Monitoring System	1-hour average	EPA Performance Specification 1 (40 CFR 60, Appendix B, July 1, 1997) EPA Method 9 (40 CFR 60, Appendix A, July 1, 2002.
EU 1. 5	**RESERVED**					
EU 1. 6	**RESERVED**					
Puget Sound Clean Air Agency Orders of Approval NOC 12003 – Tire Derived Fuel (TDF)						
EU 1. 7	Puget Sound Clean Air Agency Order of Approval No. 12003, Condition 3 40 CFR 241.4(a)(1)	12/5/2025	Ash Grove shall measure and record, each calendar day, the total weight of whole tires injected as non-hazardous secondary material fuel each calendar day as defined by 40 CFR 241.4(a)(1)	Record keeping per the Fuel Monitoring Plan	Daily	NA
EU 1. 8	**RESERVED**					

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Puget Sound Clean Air Agency Order of Approval NOC 7381 and PSD Permit 90-03 -- Kiln BACT limits.						
EU 1. 9	Puget Sound Clean Air Agency Order of Approval No. 7381 Condition 5(a). PSD Permit 90-03, Amendment 3, Condition 3	6/06/01 10/08/01	CO emissions shall not exceed 1045 ppm at 10% O_2 for an 8-hour average. CO emissions shall not exceed 538 lbs/hour for an 8-hour average. CO shall not exceed 2353 tons per year including startup, shut down and malfunction periods.	II.B.2 SO2, CO and NOx CEMS II.B.3 SO2, CO and NOx Mass Emission Rate Monitoring	8 hours and annual	EPA Method 10 (40 CFR Part 60, Appendix A, July 1, 2002) EPA Performance Specification 4 (40 CFR Part 60, Appendix B, July 1, 1997)
EU 1. 10	Puget Sound Clean Air Agency Order of Approval No. 7381 Condition 5(b). PSD Permit 90-03, Amendment 3, Condition 1	6/06/01 10/08/01	NO_x emissions shall not exceed 650 ppm at 10% O_2 as a 24-hour rolling average. NO_x emissions shall not exceed 1846 tons as a 12-month running total including startup, shut down and malfunction periods. If NOx emissions exceed 1400 tons as a 12-month running total, Ash Grove shall notify the Puget Sound Clean Air Agency (Attn. Permit Certification) describing actions that will be implemented to assure compliance with the annual NOx limit.	II.B.2 SO2, CO and NOx CEMS II.B.3 SO2, CO and NOx Mass Emission Rate Monitoring	24-hours and annual	EPA Method 7E (40 CFR Part 60, Appendix A, July 1, 2002) EPA Performance Specification 2 (40 CFR 60, Appendix B, July 1, 1997)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 11	Puget Sound Clean Air Agency Order of Approval No. 7381 Condition 5(c). PSD Permit 90-03, Amendment 3, Condition 2	6/06/01 10/08/01	Except during startup and shutdown of the kiln and scheduled maintenance SO_2 emissions from the main stack shall not exceed 180 ppm at 10% O_2 for a one-hr average. During startup following the introduction of feed to the kiln, SO_2 emissions from the main stack shall not exceed 200 ppm at 10% O_2 for a one-hr average. SO2 emissions shall not exceed 176 tons per year including startup, shut down and malfunction periods.	II.B.2 SO2, CO and NOx CEMS II.B.3 SO2, CO and NOx Mass Emission Rate Monitoring	One hour & annual	EPA Method 6C (40 CFR Part 60, Appendix A, July 1, 2002) EPA Performance Specification 2 (40 CFR 60, Appendix B, July 1, 1997)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 12	Puget Sound Clean Air Agency Order of Approval No. 7381 Condition 6(a). PSD Permit 90-03, Amendment 3, Condition 2(c)	06/06/01 10/08/01	During kiln startup-preheat periods prior to feed introduction, shutdown and scheduled maintenance on the main baghouse the SO_2 emission limit for the main baghouse shall consist of compliance with the following work practices and fuel restrictions: (i) Only natural gas shall be used as fuel. (ii) Sulfur rings shall be removed from the Kiln prior to startup if sulfur rings formation had required the kiln to be shut down. (iii) Ash Grove shall follow the kiln startup and shutdown procedures in Appendix A to Order of Approval No. 7381.	II.B.8 Kiln Work Practice Monitoring	NA	NA
EU 1. 13	Puget Sound Clean Air Agency Order of Approval No. 7381 Condition 5(d).	06/06/01	Except during startup and shutdown of the kiln, scheduled maintenance and emissions considered unavoidable under WAC 173-400-107, PM emissions shall not exceed 10.6 pounds per hour.	II.B.9 PM Monitoring Main Baghouse	(3) 1-hour runs	Puget Sound Clean Air Agency Method 5 (See Section X)
EU 1. 14	Puget Sound Clean Air Agency Order of Approval No. 7381 Condition 5(d).	06/06/01	PM emissions shall not exceed 46 tons per year including startup, shut down and malfunction periods.	II.B.9 PM Monitoring Main Baghouse II.B.10 Production Rate Monitoring	annual	NA

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
40 CFR Part 60 Subpart F Standards of Performance for Portland Cement Plants						
EU 1. 15	40 CFR §60.62(a)(1) 40 CFR §60.8(c)	10/6/75 2/12/99	Kiln exhaust shall not exceed 0.30 lb of particulate per ton of feed (dry basis), except during SSM periods.	II.B.9 PM Monitoring Main Baghouse II.B.10 Production Rate Monitoring	(3) 1-hour runs	EPA Method 5 (40 CFR 60, Appendix A, July 1, 2002)
EU 1. 16	40 CFR §60.62(a)(2) 40 CFR 60.11(c)	10/6/75 10/17/00	Kiln exhaust shall not exceed 20 percent opacity, except during startup, shutdown and malfunction periods.	II.B.1 Opacity COMS	6 min. average	EPA Method 9 (40 CFR 60, Appendix A, July 1, 2002.
EU 1. 17	40 CFR §60.63(a)	12/14/88	Ash Grove shall record the daily production rates and kiln feed rates.	II.B.10 Production Rate Monitoring	NA	NA
40 CFR Part 60 Subpart Y Standards of Performance for Coal Preparation Facilities						
EU 1. 18	40 CFR 60.252(a)(1) 40 CFR §60.8(c)	10/17/00 2/12/99	Coal mill exhaust shall not exceed 0.031 gr/dscf, except during SSM periods.	II.A.1 General Opacity Monitoring	3 one-hour runs	EPA Method 5 (40 CFR 60, Appendix A, July 1, 2002)
EU 1. 19	40 CFR 60.252(a)(2) 40 CFR 60.11(c)	10/17/00 10/17/00	Coal mill exhaust shall not exceed 20 percent opacity except during SSM periods	II.A.1 General Opacity Monitoring	More than 6 min. in any 1 hr.	EPA Method 9 (40 CFR 60, Appendix A, July 1, 2002)
EU 1. 20	40 CFR 60.253(a)(1) and (b)	10/17/00	Ash Grove shall calibrate, maintain and continuously operate a temperature monitor at the inlet to each coal mill baghouse.	II.B.13 Temperature CMS	N/A	N/A/

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
40 CFR Part 63, Subparts A and LLL						
EU 1. 21	40 CFR §63.6(e)(1)	5/30/03	At all times, including periods of startup, shutdown, and malfunction, Ash Grove shall operate and maintain the kiln and raw mill, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. During an SSM period this general duty to minimize emissions requires that Ash Grove reduce emissions from the kiln and raw mill to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during an SSM event does not require Ash Grove to achieve emission levels required by Conditions EU 1.26 through 1.29 at other times if this is not consistent with safety and good air pollution control practices, nor does it require Ash Grove to make any further efforts to reduce emissions if levels required by Conditions EU 1.26 through 1.29 have been achieved.	II.B.14 Kiln Combustion System Inspections	N/A	N/A

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 22	40 CFR §63.6(e)(3)(i)	5/30/03	Ash Grove shall develop and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the kiln and raw mill during SSM periods, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with Subpart LLL standards. The SSM plan shall include the elements set forth in 40 CFR 63.6(e)(3).	II.D.8 NESHAP Subpart LLL Recordkeeping II.C.3 Immediate SSM Plan Deviation Report II.C.7 Semi-annual Subpart LLL SSM Plan Report	N/A	N/A
EU 1. 23	40 CFR 63.6(e)(3)(ii) 40 CFR 63.6(e)(1)(ii)	5/30/03 5/30/03	During SSM periods Ash Grove shall operate and maintain the kiln and raw mill (including associated air pollution control equipment) in accordance with the SSM plan. Malfunctions shall be corrected as soon as possible after their occurrence in accordance with the SSM plan	II.D.8 NESHAP Subpart LLL Recordkeeping II.C.3 Immediate SSM Plan Deviation Report II.C.7 Semi-annual Subpart LLL SSM Plan Report	N/A	N/A
EU 1. 24	40 CFR §63.6(e)(3)(vii)	5/30/03	Ash Grove shall change the SSM plan if required by the Puget Sound Clean Air Agency if it is determined to be unacceptable under §63.6(e)(2).	No monitoring required	N/A	N/A

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 25	40 CFR §63.6(e)(3)(viii)	5/30/03	Ash Grove shall update the SSM plan within 45 days of an SSM event that the plan failed to address or inadequately addressed. If Ash Grove makes SSM plan revisions which alter the scope of activities which are deemed a SSM or modifies the applicability of any limit or requirement under Subpart(s) A and LLL, the revisions shall not take effect until Ash Grove has provided written notification describing the revision to the Puget Sound Clean Air Agency.	No monitoring required	N/A	N/A
EU 1. 26	40 CFR §63.1343(d) 40 CFR §63.6(f)	6/14/99 5/30/03	Ash Grove shall not cause to be discharged into the atmosphere from the kiln exhaust Dioxin/furan (D/F) exceeding 0.20 ng/dscm ($8.7x10^{-11}$ gr/dscf)(TEQ) @ 7% O_2 when the baghouse inlet temperature is greater than 400º F, and 0.40 ng/dscm ($8.7x10^{-11}$ gr/dscf)(TEQ) @ 7% O_2 when the baghouse inlet temperature is equal to or less than 400º F. Standards apply at all times except during SSM periods.	II.B.13 Temperature CMS	(3) 3-hour runs	EPA Method 23 (40 CFR 60, Appendix A, July 1, 2002)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 27	40 CFR §63.1343(d) 40 CFR §63.6(f)	6/14/99 5/30/03	Ash Grove shall not cause to be discharged into the atmosphere from either coal mill stack Dioxin/furan (D/F) exceeding 0.40 ng/dscm ($8.7x10^{-11}$ gr/dscf)(TEQ) @ 7% O_2. Standards apply at all times except during SSM periods.	II.B.13 Temperature CMS	(3) 3-hour runs	EPA Method 23 (40 CFR 60, Appendix A, July 1, 2002)
EU 1. 28	40 CFR §63.1344(**a**) 40 CFR 63.6(f)	12/6/02 5/30/03	Ash Grove shall operate the kiln such that the temperature of the gas inlet to the kiln/raw mill baghouse does not exceed the applicable temperature limits established during a performance test for periods when the raw mill does and does not operate. (§63.1349(b)). Standards apply at all times except during SSM periods.	II.B.13 Temperature CMS	3-Hour Rolling Average	NIST Calibrated Reference Thermocouple – Potentiometer system
EU 1. 29	40 CFR §63.1344(**a**), as modified by 10/18/02 letter from Puget Sound Clean Air Agency to Robert Vantuyl establishing alternative monitoring methods for the coal mill 40 CFR 63.6(f)	12/6/02 5/30/03	Ash Grove shall operate the kiln such that the inlet temperature to each coal mill baghouse does not exceed 200 degrees F. Standards apply at all times except during SSM periods.	II.B.13 Temperature CMS	3-Hour Rolling Average	NIST Calibrated Reference Thermocouple – Potentiometer system

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 30	40 CFR 63.1349(b)(3) and (d); 10/18/02 letter from Puget Sound Clean Air Agency to Robert Vantuyl establishing alternative monitoring methods for the coal mill	12/6/02	Except as waived or modified pursuant to 40 CFR 63.7 or 63.8, every 30 months Ash Grove shall conduct a performance test on the kiln and the two coal mill baghouse exhaust vents for dioxin/furans, using test methods described in 40 CFR 63.1349(b)(3). In any performance test conducted on the coal mills, Ash Grove may measure dioxin/furan emissions from one of the two coal mills, but the flow rate shall be measured from both coal mills. The first such test shall occur no later than 30 months after the initial performance test performed on October 22-24, 2002.	II.C.8 Subpart LLL Performance Test Reporting II.D.8 NESHAP Subpart LLL Recordkeeping	(3) 3-hour runs	EPA Method 23 (40 CFR 60, Appendix A, July 1, 2002)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 31	40 CFR 63.1349(e)(3)(i)	12/6/02	Provide Puget Sound Clean Air Agency written notice at least 60 days prior to undertaking any operational change that may adversely affect compliance with the D/F emission standards in Conditions EU 1.26 and 1.27, or as soon as practicable where 60 days advance notice is not feasible. Notice shall include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required by Condition EU 1.32, including when the planned operational change would begin.	N/A	N/A	N/A

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 32	40 CFR 63.1349(b)(3) and (e)	12/6/02	Conduct a dioxin/furan performance test whenever Ash Grove plans to undertake a change in operations that may adversely affect compliance with the D/F emission standards in Conditions EU 1.26 or 1.27. In preparation for and while conducting the performance test, the kiln and raw mill may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that Ash Grove notifies Puget Sound Clean Air Agency as described in Condition EU 1.31, that the performance test results are documented in a test report containing the information listed in 40 CFR 63.1349(a), and that a test plan is made available for Puget Sound Clean Air Agency review prior to testing, if requested. The performance test must be completed within 360 hours after the planned operational change begins. Ash Grove shall submit to Puget Sound Clean Air Agency temperature and other monitoring data recorded during any period of pretest operations.	II.C.8 Subpart LLL Performance Test Reporting II.D.8 NESHAP Subpart LLL Recordkeeping	(3) 3-hour runs	EPA Method 23 (40 CFR 60, Appendix A, July 1, 2002)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 33	40 CFR 63.1349(e)(1)	12/6/02	Data collected during a performance test under Condition EU 1.32 shall be used to establish new temperature limits for the kiln, supplanting the limits established under 40 CFR 63.1349(b).	N/A	N/A	N/A
EU 1. 34	40 CFR 63.8(e); 40 CFR 63.9(g) 40 CFR 63.1353(b)(4) 40 CFR 63.10(e)(2) 40 CFR 63.1354(b)(6)	4/5/02 5/30/03 6/14/99 5/30/03 4/5/02	Ash Grove shall conduct a performance evaluation of the temperature CMS required by Conditions EU 1.29 and 1.30 whenever requested by EPA under Clean Air Act Section 114. Any performance evaluation shall be conducted in accordance with the requirements of 40 CFR 63.8(e). Notification of the performance evaluation shall be provided as required in 40 CFR 63.1353(b)(4). Results of the performance evaluation shall be reported as provided in 40 CFR 63.1354(b)(6).	N/A	N/A	N/A

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1. 35	40 CFR §63.1350(a)-(b)	12/6/02	Ash Grove shall prepare for the kiln and raw mill an O&M plan including the following provisions: (a) Procedures for proper operation and maintenance of the kiln and associated air pollution control equipment to meet the dioxin/furan emission limits and parametric limits in conditions EU 1.26, 1.27 and 1.28; (b) Procedures to be used during an inspection of the components of the kiln and raw mill at least once per year. Failure to comply with those procedures shall be a violation of Subpart LLL. Ash Grove submitted the O&M plan for this requirement to the Puget Sound Clean Air Agency for approval on May 24, 2002. Ash Grove shall submit updates of the O & M Plan to the Agency upon adoption. Ash Grove may elect to integrate the Subpart LLL O&M Plan into the general O&M plan required by Condition I.A.15. If so the general O&M plan shall specifically identify those provisions required by this condition.	II.B.14 Kiln Combustion System Inspection II.D.8 NESHAP Subpart LLL Recordkeeping	NA	NA

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Puget Sound Clean Air Agency Order of Approval NOC 9229 Burn Used Oils in Kiln						
EU 1.36	Puget Sound Clean Air Agency Order of Approval No. 9229 Condition 3	05/17/2007	3. Ash Grove shall limit used oil to non-hazardous as defined by WAC 173-303-515, Special Requirements for Used Oil Burned for Energy Recovery, or by WAC 173-303-090, Dangerous Waste Characteristics. Ash Grove is authorized to burn used oils meeting the material specifications in EU 1.38.	II.B.5 Used Oil Monitoring	Daily	NA
EU 1.37	Puget Sound Clean Air Agency Order of Approval No. 9229 Condition 4	05/17/2007	4. Ash Grove shall limit the total amount of used oil injected into the kiln to 8640 gal/calendar day.	II.B.5 Used Oil Monitoring	Daily	NA
EU 1.38	Puget Sound Clean Air Agency Order of Approval No. 9229 Condition 5	05/17/2007	5. Ash Grove shall only burn used oils meeting the following limits as delivered: (a) As less than or equal to 5 ppm; (b) Cd less than or equal to 2 ppm; (c) Cr less than or equal to 10 ppm; (d) Pb less than or equal to 100 ppm; (e) PCB less than or equal to 50 ppm; (f) Total Halogens less than 1000 ppm; (g) Flash Point greater than or equal to 100°F; (h) Heat content between 5,000 Btu/lb & 19,000 Btu/lb.	II.B.5 Used Oil Monitoring	Daily	NA
Puget Sound Clean Air Agency Order of Approval NOC 12003 Tire Derived Fuel in Kiln						

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1.39	Puget Sound Clean Air Agency Order of Approval No.12003 Condition 5	12/05/2025	Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall complete a study to determine if this operational change results in any increase of arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium. Ash Grove shall submit a test plan that includes fuel rates for each condition. Tests will be in accordance with EPA Method 29, and the methodology for determining if there is an increase in emissions of a pollutant will be in accordance with Appendix C to 40 CFR Part 60. Based on the results of this test, one of the following two conditions shall take effect: a. If the study shows that modification does not lead to an increase in emissions of any tested TAP, the maximum rate of whole tires that will be used as defined in the Fuel Monitoring Plan required in Order of Approval 12003, condition 4 shall replace the previously established permitted tire consumption rate. b. If the study shows that this modification results in an increase in the emission rate to the atmosphere of any TAP, then the previous established rate 30% TDF by weight, daily average limit shall remain in place. A limit of 30% TDF by weight, daily average limit shall remain in effect until the results of this study are reported, except for the days needed to conduct this study. During the days of this study, the TDF limit shall be defined in the fuel monitoring plan required by Order of Approval 12003, Condition 4.	II.B.15. Tire Derived Fuel Source Testing	N/A	EPA method 29 (40 CFR 60, Appendix A, August 30, 2016)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1.40	Puget Sound Clean Air Agency Order of Approval No.12003 Condition 9	12/05/2025	Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct stack testing for hydrogen chloride per EPA Method 26 or 26A in accordance with PSCAA Regulation I 3.07. Ash Grove shall conduct the tests at the maximum rate of whole tire injection specified in section II.B.6 of this permit and shall use the tests to calculate a facility-specific emissions factor for HCl, in units of pounds of HCl per ton of clinker. The tests shall include three runs under raw-mill-up conditions, and three runs under raw-mill-down conditions.	II.B.15 Tire Derived Fuel Source Testing	N/A	EPA method 26 (40 CFR 60, Appendix A, August 30, 2016) Or EPA method 26A (40 CFR 60, Appendix A, August 30, 2016)
EU 1.41	Puget Sound Clean Air Agency Order of Approval No.12003 Condition 9	12/05/2025	Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct source tests in accordance with PSCAA Regulation I 3.07 to demonstrate compliance with the following previously established emission limits for particulate matter and Dioxin/Furan in Conditions EU 1.26 or 1.27.	II.C.8 Subpart LLL Performance Test Reporting II.D.8 NESHAP Subpart LLL Recordkeeping	(3) 3-hour runs	EPA Method 23 (40 CFR 60, Appendix A, July 1, 2002)

Reqmt. No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 1.42	Puget Sound Clean Air Agency Order of Approval No.12003 Condition 9	12/05/2025	Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct source tests in accordance with PSCAA Regulation I 3.07 to demonstrate compliance with the following previously established emission; a. Kiln exhaust shall not exceed 0.30 lb of particulate per ton of feed (dry basis) except during SSM periods. b. Kiln exhaust shall not exceed 0.07 lb of particulate per ton of clinker except during SSM periods, per 40 CFR 63.1343(b)(1) c. Ash Grove shall not cause to be discharged into the atmosphere from the kiln exhaust Dioxin/Furan (D/F) exceeding 0.20 ng/dscm (TEQ) @ 7% O2. If the average temperature at the inlet to the baghouse during the D/F performance test is 400°F or less, this limit is changed to 0.40 ng/dscm (TEQ).	II.C.8 Subpart LLL Performance Test Reporting II.D.8 NESHAP Subpart LLL Recordkeeping	(3) 3-hour runs	

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

2. Emission Unit Group #2 (EU-2): Coal Processing, Storage and Transfer Facilities

This group consists of four coal storage, processing and transfer and loading systems that are subject to NSPS Subpart Y, Standards of Performance For Coal Preparation Plants. The affected facilities are Equipment Numbers 41B.FN1 (Coal Feeder #1), 41B.FN2 (Coal Feeder #2), 41A.BF3 (Raw Coal Silo), and 41C.BF1 (PF Bin). Subpart Y also regulates the #1 and #2 coal mills, but the applicable requirements for those units appear in Section I.B.1 above.

APPLICABLE REQUIREMENTS

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 2. 1	40 CFR §60.11(d)	10/17/00	At all times, including SSM periods Ash Grove shall to the extent practicable maintain and operate Subpart Y affected facilities including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.	I.A.4 O&M Plan Inspections	N/A	N/A
EU 2. 2	40 CFR 60.252(c) 40 CFR 60.11(c)	10/17/00 10/17/00	Exhaust gases shall not exceed 20 percent opacity except during SSM periods.	II.A.1 General Opacity Monitoring	6 minute average	EPA Method 9 (40 CFR 60, Appendix A, July 1, 2002) 40 CFR 60.254, 2/14/89

3. Emission Unit Group #3 (EU-3): Portland Cement NSPS Affected Facilities

This group consists of certain equipment subject to 40 CFR Part 60, Subpart F, the New Source Performance Standards for Portland Cement Plants. The affected facilities included in this group are Transfer Towers 2, 3, 5, 6, 7, 8 and 10A, Equipment Numbers 311.ST1 (Stacker), 311.RE1 (Reclaimer), 315.BN1 (Limestone Storage Bin), P11.TD (Truck Dump), 41B.SX1 (Raw Coal Storage Silos), 312.FA1 (Feeder), 312.7G1(Clay Storage Shed), 315.BN2 (Clay Storage Bin), 315.BN3 (Silica Storage Bin), 315.BN4 (Slag Storage Bin), 315.FA1 (Clay Apron Feeder), 411.SX1, 411.SX 2(Raw Meal Blending, 411.SX3, 411.SX4 (Raw Meal Storage Silos), 612.DM1 (Cement Storage Dome), 419.BC6 (Clinker Shed Tripper), 41G (Clinker Loadout Railcar) and 611.BK1 (Cement Loadout Bulk Bag). Subpart F also regulates the kiln and raw mill, but the Subpart F requirements for those units are set forth in Conditions EU 1.15, 1.16 and 1.17.

APPLICABLE REQUIREMENTS

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
EU 3. 1	40 CFR §60.11(d)	10/17/00	At all times, including SSM periods Ash Grove shall to the extent practicable maintain and operate Subpart F affected facilities including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.	I.A.4 O&M Plan Inspections	N/A	N/A
EU 3. 2	40 CFR 60.62(c) 40 CFR 60.11(c)	10/17/00 10/17/00	Exhaust gases shall not equal or exceed 10 percent opacity except during SSM periods.	II.A.1 General Opacity Monitoring	6 minute average	EPA Method 9 (40 CFR 60, Appendix A, July 1, 2002)

4. Emission Unit #4 (EU-4): Finish Mills

The two finish mills are each rated at 55 tons per hour, installed in 1968 and controlled by two nominal 77,000 acfm high efficiency separator baghouses and two nominal 20,000 acfm mill sweep baghouses.

The clinker from the kiln that is passed through the G-Cooler becomes processed in the ball mills by grinding with gypsum to form cement and sent to the cement silos for storage.

In addition to the applicable requirements listed in this section, the finish mills are subject to the plant-wide requirements in Section I.A.

APPLICABLE REQUIREMENTS

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Puget Sound Clean Air Agency Orders of Approval NOC 5276						
EU 4. 1	Puget Sound Clean Air Agency Order of Approval No. 5276 Condition 4.	1/19/94	Ash Grove shall not allow particulate emissions from the (2) mill sweep baghouses to exceed 0.01 gr/dscf.	II.B.4 Finish Mill Baghouse Monitoring.	Average of 3 three-hour runs	Puget Sound Clean Air Agency Method 5 (See Section X)
EU 4. 2	Puget Sound Clean Air Agency Order of Approval No. 5276 Condition 6.	1/19/94	Ash Grove shall not allow particulate emissions from the (2) mill sweep baghouses to exceed 10% opacity.	II.B.4 Finish Mill Baghouse Monitoring.	More than 3 min. in any 1 hr	Ecology Method 9A (See Section X)

5. Emission Unit #5 (EU-5): Cement Dome & Steel Scale Tanks

The Cement Storage Dome is a 45,000 ton finished product storage facility controlled by a 6000 acfm Alanco baghouse. The Dome was installed in 1998. The four steel scale tanks are finished product loading facilities, used to load cement into trucks or railcars. The tanks were installed prior to 1971, but in 1998 Ash Grove replaced one of two baghouses that control emissions from the tanks with a new 6000 acfm Alanco baghouse. NOC 7242 approves construction of the Cement Storage Dome and the two Alanco baghouses.

In addition to the applicable requirements listed in this section, the Cement Storage Dome is subject to the plant-wide requirements listed in Section I.A and to the NSPS Subpart F requirements listed in Section I.B.3 of the permit. The Steel Scale Tanks are not Subpart F affected facilities.

APPLICABLE REQUIREMENTS

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Puget Sound Clean Air Agency Orders of Approval NOC 7242 - Cement Storage Dome						
EU 5. 1	Puget Sound Clean Air Agency Order of Approval No. 7242, Condition 7	1/06/98	Ash Grove shall not allow PM-10 emissions from the Alanco baghouses mounted on the cement storage dome and the steel scale tanks to exceed 0.005 grains/dscf over a twenty-four hour period.	II.A.1 General Opacity Monitoring II.B.7 Cement Storage Dome Monitoring	Source test for a 24 hr period	Particulate by EPA Method 5 or EPA Method 201A (40 CFR Part 60, Appendix A, July 1, 2002; 40 CFR Part 51, Appendix M, July 1, 2001)

6. Emission Unit #6 (EU-6): Bulk Bag Loading Station

Bulk Bag Loading Station controlled with a 500 cfm baghouse. In addition to the applicable requirements listed in this section, the Bulk Bag Loading Station is subject to the plant-wide requirements listed in Section I.A and to the NSPS Subpart F requirements listed in Section I.B.3 of the permit.

APPLICABLE REQUIREMENTS

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Puget Sound Clean Air Agency Orders of Approval NOC 8318 – Bulk Loading Station						
EU-6.1	Puget Sound Clean Air Agency Order of Approval No. 8318 Condition 3.	1/8/01	Ash Grove shall allow no visible emissions or fallout from the 500 cfm baghouse controlling the bulk bag loading station.	II.B.11 Bulk Bag Loading Station Monitoring	NA	NA
EU 6. 2	Puget Sound Clean Air Agency Order of Approval No. 8318 Condition 5.	1/8/01	If visible emissions, abnormal pressure drop or fallout are observed Ash Grove shall investigate the cause and either initiate repairs or shut down the equipment vented to the baghouse within 24 hours of the observation.	II.B.11 Bulk Bag Loading Station Monitoring	NA	NA

7. Emission Unit #7 (EU-7): Clinker Storage Shed

In addition to the applicable requirements listed in this section, the Clinker Storage Shed is subject to the plant-wide requirements listed in Section I.A.

APPLICABLE REQUIREMENTS

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Puget Sound Clean Air Agency Orders of Approval NOC 8600 – Clinker Storage Shed						
EU-7.1	Puget Sound Clean Air Agency Order of Approval No. 8600 Condition 3.	2/8/02	Ash Grove shall not allow the PM-10 emissions from the Pulse Jet R-08-88-81 baghouse to exceed 0.005 grains/dscf over a twenty-four hour period.	II.A1 General Opacity Monitoring	Source test for a 24 hr period	Particulate by EPA Method 5 or EPA Method 201A (40 CFR Part 60, Appendix A, July 1, 2002; 40 CFR Part 51, Appendix M, July 1, 2001)

8. Emission Unit #8 (EU-8): Group II Cement Silos

In addition to the applicable requirements listed in this section, the Group II Silos are subject to the plant-wide requirements listed in Section I.A.

APPLICABLE REQUIREMENTS

Reqmt No.	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method (See Section II)	Emission Standard Period	Reference Test Method
Puget Sound Clean Air Agency Orders of Approval NOC 8643 – Group II Silos						
EU-8.1	Puget Sound Clean Air Agency Order of Approval No. 8643 Condition 3.	2/8/02	Ash Grove shall not allow the PM-10 emissions from each of the Pulse Jet Dust Collectors to exceed 0.005 grains/dscf over a twenty-four hour period.	II.A.1 General Opacity Monitoring	Source test for a 24 hr period	Particulate by EPA Method 5 or EPA Method 201A (40 CFR Part 60, Appendix A, July 1, 2002; 40 CFR Part 51, Appendix M, July 1, 2001)

II. MONITORING, REPORTING AND RECORDKEEPING METHODS

A. Facility Wide Monitoring Methods

1. General Opacity Monitoring

Ash Grove shall conduct monthly inspections of the facility for visible emissions. Inspections are to be performed while the equipment is in operation during daylight hours. If, during the scheduled inspection or at any other time, visible emissions other than uncombined water are observed, Ash Grove shall, as soon as possible, but no later than 24 hours after the initial observation, take corrective action until there are no visible emissions, shut down the unit or activity until it can be repaired or conduct a reference method opacity observation. If a reference method opacity observation reveals an exceedance of the applicable visible emissions limit, report the observation as a deviation and shut the unit down until repairs are complete and a non-reference method visible emissions observation reveals no visible emissions. Report deviations as provided in Condition II.C.2. Maintain records as provided in Conditions II.D.1 and II.D.5.

[Order of Approval No. 7381, Condition 4 (6/6/01); WAC 173-401-615(1), 10/17/02]

2. Complaint Response

Ash Grove shall develop and implement an Air Pollution Complaint Response Program as part of the O&M Plan required by Regulation I Section 7.09(b). The Complaint Response Program shall be annually reviewed and updated along with the O&M Plan. This Program shall include:

- An Ash Grove local contact person and a 24-hour telephone number;
- Complaint forms available to the public;
- Criteria and methods for establishing whether Ash Grove may be the source of fugitive dust or other air contaminant impacts on neighboring property;
- Format of communicating results of investigations and advising complainants of Ash Grove's corrective actions and preventive maintenance;
- Ash Grove shall record air pollution complaints (including those forwarded to Ash Grove from this Agency) and findings of investigations as provided in Condition II.D.6. Investigations shall be initiated within 1 day of receipt of a complaint on Ash Grove's 24 hour complaint reporting phone line. Ash Grove's Complaint Response Program shall describe the procedures for investigating complaints. Complaint investigation procedures shall include efforts to contact the complainant, to inspect the conditions described in the complaint, to determine whether Seattle plant sustained a malfunction or other operating or site conditions that might have generated abnormal levels of fugitive emissions, and to determine the wind speed, direction and/or other meteorological conditions during relevant times preceding receipt of the complaint.

If Ash Grove determines that emissions from its plant unreasonably impacted neighboring properties Ash Grove shall either eliminate the problem within 24 hours of identification or report a deviation as provided in Condition II.C.2. Ash Grove also shall report as a deviation any failure to initiate investigation of a complaint within 1 day of receipt of the complaint. Results

of complaint investigations shall be reported monthly as provided in Condition II.C.10. Maintain records as provided in Condition II.D.6.

[WAC 173-401-615(1), 10/17/02]

3. Roof Top Inspections

Ash Grove shall conduct a roof-top[1] inspection at least weekly. These inspections shall include inspection for odor-bearing contaminants and for fugitive emissions from any part of the facility. In the event any fugitive emission release is discovered by an inspection, Ash Grove shall as soon as possible, but no later than 24 hours after discovered, begin corrective action, shut the operation down until the problem can be corrected, or report the release as a deviation as provided in Condition II.C.2. Ash Grove shall document each inspection as provided in Condition II.D.5.

[WAC 173-401-615(1) and WAC 173-401-615(2), 10/17/02]

4. O & M Plan Inspections

Ash Grove shall conduct a facility wide equipment inspection at least monthly. These inspections shall include:

- checking for prohibited activities under Section III of the permit and activities that require additional approval under Section IV of the permit
- inspection for proper operation of equipment and control equipment
- inspection for evidence that fugitive dust control measures required by Section 9.15 of Regulation I are being implemented
- inspection for odor bearing contaminant emissions from the facility.

In the event any violation of the underlying applicable requirement(s) are discovered by an inspection, Ash Grove shall as soon as possible, but no later than 24 hours after discovered, begin corrective action, shut the operation down until the problem can be corrected, or report the violation as a deviation under Condition II.C.2.

Ash Grove shall document all inspections required by this condition as provided in Condition II.D.5.

[Puget Sound Clean Air Agency Regulation I, Section 7.09(b) (9/10/1998); WAC 173-401-615(1) (10/17/02)].

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[1] *A "roof-top inspection" is a visual inspection of the overall facility from a sufficient height to allow the determination of the point(s) of origin and possibly the cause(s) of fugitive emissions.*

B. Source Specific Monitoring Methods

1. Continuous Opacity Monitoring System

i. Continuous Monitoring. Ash Grove shall install, calibrate, maintain and operate, in accordance with 40 CFR 60.13, a continuous opacity monitoring system (COMS) on the main kiln stack.

ii. Data Recovery. Ash Grove shall recover valid hourly monitoring data for at least 95% of the hours that the kiln operates during each calendar month except for periods of monitoring system downtime, provided that Ash Grove demonstrates to the Control Officer that the downtime was not a result of inadequate design, operation, or maintenance, or any other reasonably preventable condition, and any necessary repairs to the monitoring system are conducted in a timely manner.

iii. Quality Assurance. The COMS shall meet Performance Specification 1 in 40 CFR Part 60, Appendix B (1992), and Ash Grove shall operate this monitoring system in accordance with the U.S. Environmental Protection Agency's "Recommended Quality Assurance Procedures for Opacity Continuous Monitoring Systems" (EPA 340/1-86-010).

iv. Data Recording. Monitoring data commencing on the clock hour and containing at least 45 minutes of monitoring data shall be reduced to 1-hour averages. Monitoring data for opacity shall also be reduced to 6-minute averages. All monitoring data shall be included in these averages except for data collected during calibration drift tests and for data collected subsequent to a failed quality assurance test or audit.

v. Relative Accuracy Tests. All relative accuracy tests shall be subject to the provisions of Regulation I, Section 3.07 (2/9/95).

vi. Reporting and Recordkeeping. Report as provided in Conditions II.C.4, II.C.5, II.C.11 and/or II.C.12 (where applicable) each occasion on which the COMS records a violation of applicable opacity limit(s), or on which the COMS sustains an unexcused failure to meet the data recovery requirements of this condition. Maintain records as required in Section II.D.

[WAC 173-401-615(1) (10/17/02); 40 CFR 60.63(b) (12/14/88); 40 CFR 60.13(a), (d) - (f) and (h) (8/27/01); Order of Approval 7381, Condition 7 (6/6/01); Puget Sound Clean Air Agency Regulation I, Section 12.01 & 12.03 (4/9/98)]

2. SO2, CO and NOx Continuous Emissions Monitoring System

i. Continuous Monitoring. Ash Grove shall operate a continuous emission monitoring system (CEMS) for SO2, CO and NOx for the kiln main stack.

ii. Data Recovery. Ash Grove shall recover valid hourly monitoring data for at least 95% of the hours that the kiln is operated during each calendar month except for periods of monitoring system downtime, provided that Ash Grove demonstrates to the Control Officer that the downtime was not a result of inadequate design, operation, or maintenance, or any other reasonably preventable condition, and any necessary repairs to the monitoring system are conducted in a timely manner.

iii. Quality Assurance. The CEMS for each pollutant shall meet the relevant performance specification in 40 CFR Part 60, Appendix B (1990), and Ash Grove shall operate this monitoring system in accordance with the quality assurance procedures in 40 CFR Part 60, Appendix F in effect July 1, 1992.

iv. Data Recording. Monitoring data commencing on the clock hour and containing at least 45 minutes of monitoring data shall be reduced to 1-hour averages. All monitoring data shall be included in these averages except for data collected during calibration drift tests and for data collected subsequent to a failed quality assurance test or audit.

v Relative Accuracy Tests. All relative accuracy tests shall be subject to the provisions of Regulation I, Section 3.07 (2/9/95).

vi. Reporting. Report as provided in Condition II.C.4 each occasion on which the CEMS records a violation of applicable emission limit(s), or on which the CEMS sustains an unexcused failure to meet the data recovery requirements of this condition. Maintain records as provided in Condition II.D.1.

vii. Data Retention. See Condition II.D.3.

[WAC 173-401-615(1) (10/17/02); Order of Approval 7381, Condition 7 (6/6/01); PSD Permit 90-03, Amendment 3, Condition 7 (10/8/01); Puget Sound Clean Air Agency Regulation I, Section 12.01 & 12.03 (4/9/98)]

3. SO2, CO, and NOx Mass Emission Rate Monitoring

Ash Grove shall calculate emissions of SO2 and CO from the cement kiln operation on a calendar year basis, and NOx emissions from the cement kiln operation on a 12-month rolling total basis, using the CEMS data collected under the requirements of Section II.B.2 of this permit. Additionally, Ash Grove shall calculate the 8-hour block average mass emission rate for CO using CEMS data collected under the requirements of Section II.B.2 of this permit. Each day shall consist of three 8-hour CO compliance intervals, the first interval commencing at 12:00 AM. When CEM data is not available or not required to be collected as identified by this permit, other information available to Ash Grove shall be used to compile the emission rate values. Report deviations as provided in Condition II.C.4. Maintain records as provided in Condition II.D.10.

[WAC 173-401-615(1) and WAC 173-401-615(2), 10/17/02] [Order of Approval No. 7381, Condition 7, 6/6/01; PSD Permit 90-03, Amendment 3, Conditions 1-3, 10/8//01]

4. Finish Mill Baghouse Monitoring

Ash Grove shall monthly measure and record the pressure drop across the 20,000 cfm mill sweep baghouses. If a measurement reveals a pressure drop reading outside the range of 3 to 6 inches, take corrective action as soon as possible, but no later than 24 hours after the initial observation. If, following corrective action, the pressure drop remains outside the range of 3 to 6 inches, either shut down the unit until it can be repaired, or report the reading as a deviation. Keep a log of pressure drop readings, and of any corrective action taken. Document all measurements and

actions required by this condition as provided in Condition II.D.1. Report any deviation as provided in Condition II.C.2.

[Order of Approval 5276, Condition No. 7 (1/19/94); WAC 173-401-615(1) and WAC 173-401-615(2), (10/17/02)]

5. Used Oil Monitoring

(a) Ash Grove shall monitor and maintain daily records of the volume of used oil injected into the kiln. Ash Grove shall submit these records on a monthly basis with the required CEMS reports as provided in Condition II.C.4. Examples of used oil include:

(i) Used oils;

(ii) Refined oil tank bottoms;

(iii) Raw crude tank bottoms;

(iv) Heavy vacuum gas oil waste;

(v) Off specification fuel oil.

(b) Ash Grove shall:

(i) Authorize the person receiving and reviewing used oil shipments the authority to reject materials exceeding limits in EU 1.36 and EU 1.38.

(ii) Obtain a signed laboratory report from the oil supplier verifying each shipment of used oil received meets the limits in EU 1.38.

(iii) Maintain a used oil delivery log and record in this log the name of the supplier, the delivery date, the volume of used oil and a signed laboratory report of each shipment of used oil received.

(c) Ash Grove shall calibrate the used oil flow meter at least once per calendar year. and maintain records for that calibration.

(d) Ash Grove shall report any deviation as provided in Condition II.C.2 and shall maintain records described above in accordance with Condition II.D.3ast once per calendar year. and maintain records for that calibration in accordance with Condition II.D.3.

[Order of Approval No.9229, Conditions No. 4, 6, and 7 (05/17/2007)]

6. Tire Derived Fuel Consumption

Ash Grove shall monitor the weight of whole tires injected into the kiln following the Fuel Monitoring Plan required by Order of Approval 12003, Condition 4. This Fuel Monitoring Plan shall define the maximum rate of tires that can be used as replacement fuel as a percentage of total fuel used each day, by weight. Report a deviation per Condition II.C.2 if the daily weight of whole tires injected during each calendar day (7 am to 7 am) exceeds the maximum daily tire firing percentage defined in the Fuel Monitoring Plan.

[Order of Approval 12003, Condition No. 4 (12/5/2025); WAC 173-401-615(1) and WAC 173-401-615(2) (10/17/02)]

7. Cement Storage Dome Monitoring

Ash Grove shall install and maintain gauges to monitor the pressure drop across each of the two Alanco Baghouse exhaust filters. The acceptable ranges for the gauges shall be clearly marked on or near the gauges. Once during each shift that either Alanco baghouse is used, record the pressure drop across the exhaust filter of that baghouse. If the pressure drop falls outside the acceptable range, take corrective action as specified in the facility's O & M plan. If, following corrective action, the pressure drop remains outside the acceptable range, either shut down the unit until it can be repaired, or report the reading as a deviation. Keep a log of pressure drop readings, and of any corrective action taken Report deviations as provided in Condition II.C.2.

[Order of Approval 7242, Condition No. 4 - 6 (1/06/98); WAC 173-401-615(1) and WAC 173-401-615(2) (10/17/02)]

8. Kiln Work Practice Monitoring

Ash Grove shall log as part of the O & M Plan the following activities:

(i) The date, start and end times, and the fuels used for kiln startup-preheat periods prior to feed introduction;

(ii) The date and time of sulfur ring removal from the kiln, if the ring formation required the kiln to be shut down;

(iii) The date, start and end times for kiln startup-feed introduction periods; and

(iv) The cause for kiln shut down, the duration of kiln cool down and the kiln rotation schedule in kiln cool down.

Report as provided in Condition II.C.4 the information described above. Report as a deviation any unexcused departure from the startup and shutdown work practice requirements of Order of Approval 7381, Conditions 6(a) and (c) Maintain records as provided in Condition II.D.5.

[Order of Approval 7381, Condition 6 (6/06/01); WAC 173-401-615(1) and WAC 173-401-615(2), 10/17/02]

9. PM Monitoring Main Baghouse

(a) Conduct a Puget Sound Clean Air Agency Method 5 source test at least once per permit cycle, no later than 12 months prior to the expiration date of this permit. Report per Condition II.C.1 any exceedance of the underlying PM limit. Maintain records as provided in Condition II.D.1.

(b) Multiply the calendar year tonnage of clinker production by an emission factor of 0.0414 kg/Mg to determine annual PM10 emissions. Revise this emission factor using data from the most recent PM source test, provided that the test yields data deemed representative of the kiln baghouse emission rate. Use the revised emission factor to calculate annual emissions for years subsequent to the date of the source test. Record in a log the annual tonnage of clinker production. Report per Condition II.C.2 if calendar year PM emissions exceed 46 tons per year.

[Order of Approval 7381, Condition 5 (6/06/01); WAC 173-401-615(1) and WAC 173-401-615(2), 10/17/02]

10. Production Rate Monitoring

Record on a daily basis kiln production rate and kiln feed rate. Records may be maintained in electronic format. Report per Condition II.C.2 any failure to maintain the records required by this condition.

[40 CFR 60.63(a) (12/14/88); WAC 173-401-615(1) and WAC 173-401-615(2), 10/17/02]

11. Bulk Bag Loading Station Monitoring

At least once a week when the bulk loading station is in operation, Ash Grove shall inspect the dust collector for visible emissions, fallout and pressure drop across the filters. Record the time and results of each inspection. If visible emissions, fallout or abnormal pressure drop are observed, initiate corrective action within 24 hours or shut down the equipment vented to the baghouse within 24 hours. If, following corrective action, the problem remains, either shut down the unit until it can be repaired, or report the observation as a deviation as provided in Condition II.C.2. Keep a log of inspections and of any corrective action taken.

[Order of Approval 8318, Conditions 4-6 (1/08/01); WAC 173-401-615(1) and WAC 173-401-615(2), 10/17/02]

12. Used Oil Source Testing

(a) Ash Grove shall submit a source test plan no later than 30 days after the completion date specified in the Notice of Completion submitted for Order of Approval 9229. The source test plan shall meet the requirements of Puget Sound Clean Air Agency Regulation I, Section 3.07 for test parameters specified below. For the dioxin/furan testing, Ash Grove shall also follow 40 CFR 63, Subparts A and Subpart LLL, including determining the average inlet temperature of the particulate matter control device following. Alternative test methods to those identified in II.B.12(b) may be used only after review and approval by the Agency.

(b) Ash Grove shall complete performance source testing while operating with and without the injection of used oil. These tests shall be conducted while burning coal but not injecting tires and with the raw mill both operating and not operating. All tests shall be performed no later than 90 days after the completion date specified in the Notice of Completion submitted for Order of Approval No. 9229 and shall use the following methods:

(i) Opacity (CEMS);
(ii) SO2 (CEMS);
(iii) NOx (CEMS);
(iv) CO (CEMS);
(v) Formaldehyde (Method 0011/SW-8315);
(vi) HCl (EPA Method 26A);
(vii) Metals (EPA Method 29);

(viii) Dioxin/Furan (EPA Method 23).

(c) During the performance source testing, Ash Grove shall record the following data:

(i) Main Baghouse inlet temperature following 40 CFR 63.1349(b)(3);
(ii) Type and quantity of clinker manufactured for cement;
(iii) Type and quantity of raw materials added to kiln;
(iv) Type, quantity and fuel Btu added to the kiln (including used oil);
(v) Burnability Index; and
(vi) Variability of raw mix.

(d) Ash Grove shall report the results of the performance source test per Conditions II.C.8 and V.N.

[Order of Approval No. 9229, Conditions 8, 9, and 10 (05/17/2007)]

13. Temperature CMS

Ash Grove shall install, calibrate, maintain and continuously operate a continuous temperature monitor system (CMS) at the kiln baghouse inlet and at the inlet to each coal mill baghouse. Each CMS shall meet performance specifications in 40 CFR 63.1350(f) (4/5/02). Each CMS shall meet the O & M and data availability requirements of 40 CFR 63.8(c), (d) and (e). The calibration of the CMS shall be verified at least once every three months. Ash Grove shall continuously record inlet temperatures at the kiln and coal mill baghouses as provided in § 63.1350(f). Maintain records as provided in Conditions II.D.7 and II.D.8. Report as provided in Conditions II.C.6 and/or II.C.12 .

[40 CFR 60.253(a)(1) and (b) (10/17/00); 40 CFR 63.1350(f) (12/6/02); 40 CFR 63.8 (4/5/02); 40 CFR 63.10(b)(2)(vi) (5/30/03); WAC 173-401-615(1) (10/17/02)].

14. Kiln Combustion System Inspections

Ash Grove shall inspect the components of the kiln combustion system once per year for compliance with those provisions of the O&M Plan that ensure compliance with the dioxin/furan emission limits in Conditions EU 1.27 and 1.28. Maintain records as provided in Condition II.D.8. Report as provided in Condition II.C.6.

[40 CFR 63.1350(i) (12/6/02); 40 CFR 63.1354(a)(9)(iv) (6/14/99); WAC 173-401-615(1) and WAC 173-401-615(2), 10/17/02]

15. Tire Derived Fuel Source Testing

Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall complete a study to determine if this operational change results in an increase in the emission rate of metallic TAPs listed in WAC 173-460-150. The metals to be tested include arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium. Ash Grove shall submit a test plan that includes fuel rates for each condition. Tests will be in accordance with EPA Method 29, and the methodology for determining if there is an increase in emissions of a pollutant will be in accordance with Appendix C to 40 CFR Part 60.

If the study shows that this modification results in an increase in the emission rate to the atmosphere of any TAP, then the previous established rate 30% TDF by weight, daily average limit shall remain in place .

If the study shows that modification does not lead to an increase in emissions of any tested TAP, the maximum rate of whole tires that will be used as defined in the Fuel Monitoring Plan required in NOC 12003, condition 4 shall replace the previously established permitted tire consumption rate. A limit of 30% TDF by weight, daily average limit shall remain in effect until the results of this study are reported, except for the days needed to conduct this study. During the days of this study, the TDF limit shall be defined in the fuel monitoring plan required by condition 4.

Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct stack testing for hydrogen chloride per EPA Method 26 or 26A in accordance with PSCAA Regulation I 3.07. Ash Grove shall conduct the tests at the maximum rate of whole tire injection specified in condition 4 and shall use the tests to calculate a facility-specific emissions factor for HCl, in units of pounds of HCl per ton of clinker. The tests shall include three runs under raw-mill-up conditions, and three runs under raw-mill-down conditions.

Within 60 days after the submittal of the updated fuel monitoring plan, Ash Grove shall conduct source tests to demonstrate compliance with the following previously established emission limits:

a. Kiln exhaust shall not exceed 0.30 lb of particulate per ton of feed (dry basis) except during SSM periods.
b. Kiln exhaust shall not exceed 0.07 lb of particulate per ton of clinker except during SSM periods, per 40 CFR 63.1343(b)(1).
c. Ash Grove shall not cause to be discharged into the atmosphere from the kiln exhaust Dioxin/Furan (D/F) exceeding 0.20 ng/dscm (TEQ) @ 7% O2. If the average temperature at the inlet to the baghouse during the D/F performance test is 400°F or less, this limit is changed to 0.40 ng/dscm (TEQ).

Ash Grove shall not cause to be discharged into the atmosphere from the kiln exhaust Dioxin/Furan (D/F) exceeding 0.20 ng/dscm (TEQ) @ 7% O2. If the average temperature at the inlet to the baghouse during the D/F performance test is 400°F or less, this limit is changed to 0.40 ng/dscm (TEQ). Ash Grove shall conduct the tests at the maximum rate of whole tire injection specified in condition 4. These source tests shall use EPA Method 5 or EPA method 201 A (particulate) and EPA method 23 (dioxins/ furans). Ash Grove shall submit a report of the test results within 60 days of testing.

[Order of Approval No. 12003, Conditions 5, 7, and 9 (12/05/2025)]

C. Reporting

Ash Grove shall file the following reports with the Puget Sound Clean Air Agency on the schedules provided herein.

1. General Reporting

Any monitoring reports required by this permit shall be submitted to Puget Sound Clean Air Agency Operating Permit Certification at least once every six months, or more frequently where specified in the permit. All instances of deviations from permit requirements must be clearly identified in such reports. All reports must be certified by the responsible official consistent with Condition V.Q. Where an applicable requirement requires reporting more frequently than once every six months, the responsible official's certification needs to only be submitted once every six months, covering all required reporting since the date of the last certification, provided that the certification specifically identifies all documents subject to certification.

[WAC 173-401-615(3)(a) (10/17/02)]

2. General Deviation Reporting

Ash Grove shall report in writing to Puget Sound Clean Air Agency Operating Permit Certification all instances of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, the probable cause of the deviations, and any corrective actions taken. Ash Grove shall maintain a contemporaneous record of all deviations. Ash Grove shall report any deviations that represent a potential threat to human health or safety by FAX (206 343-7522) as soon as possible but no later than 12 hours after such a deviation is discovered. Ash Grove shall report other deviations in writing to Puget Sound Clean Air Agency Operating Permit Certification no later than 30 days after the end of the month during which the deviation is discovered. Deviations revealed by a continuous monitoring system shall be reported as provided in Condition II.C.4 or Condition II.C.11

[WAC 173-401-615(3)(b) (10/17/02)]

3. Immediate Subpart LLL SSM Plan Deviation Report

Any time an action taken by Ash Grove during an SSM event (including actions taken to correct a malfunction) is not consistent with the procedures in Ash Grove's Subpart LLL SSM Plan, and the kiln exceeds an emission limit in Conditions EU1.26 or 1.28, Ash Grove shall report the actions taken for that event to Puget Sound Clean Air Agency by telephone or facsimile transmission within 2 working days after commencing actions inconsistent with the plan. That immediate report shall be followed by a letter delivered or postmarked within 7 working days after the end of the event, explaining the circumstances of the event, the reasons for not following the plan, and describing all Subpart LLL excess emissions and/or parameter monitoring exceedances are believed to have occurred. The letter must contain the name, title and signature of the responsible official who certifies its accuracy.

[40 CFR 63.10(d)(5)(ii) (5/30/03); 40 CFR 63.1354(b)(5) (6/14/99); WAC 173-401-615(3) (10/17/02)]

4. Monthly CEM Report

Ash Grove shall file with Puget Sound Clean Air Agency a monthly CEM report, which shall be delivered or postmarked within 30 days after the end of the month in which the data were recorded. This report shall include:

a. The date, time period, magnitude and cause of each emission of opacity, CO, NOx and SO2 recorded by the kiln CEMS that exceeded applicable emission limits for that parameter;

b. The date and time of all actions taken to correct the problem, including any actions taken to minimize emissions during the exceedance and any actions taken to prevent its recurrence;

c. The number of hours that the kiln operated each month and the number of valid hours of monitoring data for each parameter that the respective CEMS recovered that month;

d. The date, time period and cause of each failure to meet the data recovery requirements of Puget Sound Clean Air Agency Regulation I, § 12.03(b), and any actions taken to ensure adequate collection of such data;

e. The date, time period and cause of each failure to recover valid hourly monitoring data for at least 90% of the hours that the kiln operated each day;

f. The results of all cylinder gas audits conducted during the month.

g. Demonstrations required under WAC 173-400-107 (4), (5) or (6) for exceedances deemed by Ash Grove to be "unavoidable."

h. The date and time of commencement of each startup preheat, each introduction of feed to the kiln, the completion of startup and each shutdown of the kiln.

i. The Complaint Response Report required by Condition II.C.10 shall be included as an attachment to the monthly CEM Report.

j. The monthly CEM reports for June and December shall include, as attachments, the reports required by Conditions II.C.5, II.C.6, and II.C.7.

k. The daily used oil consumption in gallons for each day of the month.

[PSD Permit 90-03, Amendment 3, Conditions 8 and 9 (10/8/01); Order of Approval 7381, Condition 7 (6/6/01); Puget Sound Clean Air Agency Reg. I: 12.03(f) (4/9/98); WAC 173-401-615(3) (10/17/02); Order of Approval No. 9229, Conditions No. 4 (05/17/2007)]

5. Semi-annual NSPS Report

The monthly CEM reports filed for the months of June and December shall include a semi-annual NSPS Subpart F excess emissions and monitoring system performance report, reporting data from the kiln COMS for the six month reporting periods ending June 30 and December 31. For purposes of those reports, "excess emissions" means all 6 minute periods during which the average opacity measured by the kiln COMS exceeds 20 percent. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and COMS downtime for the reporting period is less than 5 percent of the total operating time for the period, Ash Grove need submit only a Summary Report in the format shown in Section X.E below. If the total duration of excess emissions for the reporting period equals 1 percent or greater of the total operating time for the reporting period or total COMS downtime for the reporting period is 5 percent or greater of the total operating time for the period, Ash Grove shall submit both the Summary Report and an Excess Emissions Report containing the following information for kiln opacity excess emissions:

a. The magnitude of excess emissions, computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.

b. The process operating time during the reporting period;

c. Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the kiln, the nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

d. The date and time identifying each period during which the COMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments;

When no excess emissions have occurred or the COMS has not been inoperative, repaired or adjusted, such information shall be stated in the report.

The semi-annual NSPS report shall be submitted to both the Puget Sound Clean Air Agency and EPA Region 10.

[40 CFR 60.7(c) and (d) (2/12/99); 40 CFR 60.65(a) (12/14/88); 40 CFR 60.63(d) 12/14/88); WAC 173-401-615(3) (10/17/02)]

6. Semi-annual NESHAP Subpart LLL Summary Report

The monthly CEM reports filed for the months of June and December shall include a semi-annual NESHAP Subpart LLL summary report for the six month reporting periods ending June 30 and December 31. The report shall be entitled: "Gaseous Excess Emission and Continuous Monitoring System Performance." It shall contain the following information:

a. Company name and address of the Seattle plant;

b. Statement that Ash Grove monitors kiln and coal mill baghouse inlet temperature as a parametric indicator of dioxin/furan emissions;

c. Beginning and ending dates of the reporting period;

d. Brief description of the kiln and in line raw mill;

e. Description of the temperature limits in Conditions EU 1.29 and 1.30;

f. Description of the manufacturer and model number(s) of the temperature monitor systems installed on the kiln and coal mills;

g. Date of the most recent temperature CMS certification or audit;

h. Total operating time of the kiln and raw mill during the reporting period;

i. Performance summary, including each three hour period during the reporting period in which the average temperature of the kiln and/or each of the coal mills exceeded the respective temperature limits for those units as set forth in Conditions EU 1.29 and 1.30, the total duration of excess emissions expressed as a percent of the total kiln and/or coal mill operating time during the reporting period, and a breakdown of the total duration of excess emissions into those that are due to startup, shutdown, control equipment problems, process problems, other known causes and unknown causes;

j. CMS performance summary for each temperature monitor, including the total number of hours of CMS downtime during the reporting period, total duration of CMS downtime expressed as a percent of the total kiln or coal mill operating hours during the reporting period, and a breakdown of total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, QA/QC calibrations, other known causes, and unknown causes.

k. Description of any changes in any CMS, processes or controls since the last reporting period;

l. All failures to calibrate thermocouples and temperature sensors as required by Condition EU 1.20 and 40 CFR 63.1350(f)(6) (4/5/02)

m. Results of any combustion system component inspections conducted in the reporting period as provided in Condition II.B.13;

n. All failures to comply with any provision of the O&M plan developed in accordance with Condition EU 1.35;

o. Name, title and signature of the responsible official who certifies the accuracy of the report;

p. Date of the report.

If the total temperature CMS downtime for the reporting period for the kiln baghouse inlet CMS or either coal mill baghouse inlet CMS is ten percent or greater of the total operating time for the monitored unit during the reporting period, Ash Grove shall submit an excess emissions and continuous monitoring system report in addition to the summary report described in this condition.

[40 CFR 63.10(e)(3)(v)-(viii) (5/30/03); 40 CFR 63.1354(b)(8)-(10) (6/19/99); WAC 173-401-615(3) (10/17/02)]

7. Semi-annual Subpart LLL Startup Shutdown and Malfunction Report

The monthly CEM reports for June and December shall include, as an attachment, a semi-annual Subpart LLL SSM report. If actions taken by Ash Grove during SSM events occurring between January 1 and June 30 of each year were consistent with the procedures in Ash Grove's SSM plan, the SSM report for the month of June shall include a statement to that effect. If actions taken by Ash Grove during SSM events occurring between July 1 and December 31 of each year were consistent with the procedures in Ash Grove's SSM plan, the SSM report for the month of December shall include a statement to that effect. Each SSM report shall identify any instance where an action taken by Ash Grove during an SSM event (including actions taken to correct a malfunction) is not consistent with the SSM plan but the kiln and/or coal mill did not exceed an emission limit in Conditions EU 1.26 through 1.29. The report shall also include the number, duration and brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused an emission limit in Conditions EU 1.26 through 1.29 to be exceeded. For purposes of this report, a "malfunction" means any sudden, infrequent, and not reasonably preventable failure of kiln air pollution control equipment or the kiln process to operate in a normal or usual manner which causes, or has the potential to cause, any of the emission limitations in Conditions 1.26 through 1.29 to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 63.10(d)(5)(i) (5/30/03); 40 CFR 63.2 (5/30/03); 40 CFR 63.1354(b)(4) (6/14/99); WAC 173-401-615(3) (10/17/02)]

8. Subpart LLL Performance Test Reporting

Ash Grove shall report the results of each dioxin/furan performance test required by this permit. The report shall be postmarked or delivered to Puget Sound Clean Air Agency within 60 days following the completion of the performance test. With each report Ash Grove shall file a notification of compliance status as described in 40 CFR 63.9(h) (4/5/99).

[40 CFR 63.10(d)(2) (5/30/03); 40 CFR 63.9(h) (5/30/03); 40 CFR 63.1354(b)(1) (6/14/99); WAC 173-401-615(3) (10/17/02)]

9. Annual Emissions Reporting

Ash Grove shall report annually to the Puget Sound Clean Air Agency for those air contaminants during the previous calendar year that equal or exceed the following (tons per year):

Carbon monoxide (CO) emissions	25
Facility combined total of all toxic air contaminants (TAC) emissions	6
Any single toxic air contaminant (TAC) emissions	2
Nitrogen oxide (NOx) emissions	25
Particulate matter (PM10) emissions	25
Particulate matter (PM2.5) emissions	25
Sulfur oxide (SOx) emissions	25
Volatile organic compounds (VOC) emissions	25

Annual emissions rates shall be reported to the nearest whole ton per year for only those contaminants that equal or exceed the thresholds above.

[Puget Sound Clean Air Agency Regulation I, Section 7.09(a), 10/6/97] [Puget Sound Clean Air Agency Regulation I, Section 7.09(a), 9/10/98 (*State Only*)]

10. Complaint Response Reporting

Ash Grove shall submit in writing to Puget Sound Clean Air Agency a report documenting all complaints received with a summary of the nature of the complaint, the conclusion of the investigation, and any corrective action taken in response. This report shall be submitted as an attachment to the CEM report required by Condition II.C.4. In the event there are no reportable events, the Complaint Response Report shall consist of a statement to that effect.

[WAC 173-401-615(3) (10/17/02)]

D. Recordkeeping

1. General Recordkeeping

Ash Grove shall maintain records of required monitoring information that include the following if applicable:

a) The date, place as defined in the permit, and time of sampling or measurements;

b) The date(s) analyses were performed;

c) The company or entity that performed the analyses;

d) The analytical techniques or methods used;

e) The results of such analyses; and

f) The operating conditions existing at the time of sampling or measurement.

[WAC 173-401-615(2)(a), 10/17/02]

2. Changes made at the source

Ash Grove shall maintain records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[WAC 173-401-615(2)(b), (10/17/02)]

3. Record Retention

Records of all monitoring data and support information required by this permit shall be retained by Ash Grove for a period of five years from the date of the monitoring, sample, measurement, record, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[WAC 173-401-615(2)(c), (10/17/02); Puget Sound Clean Air Agency Regulation I, Section 12.03(e) (4/9/98)]

4. NESHAP Subpart LLL Record Retention

Ash Grove shall maintain files of all information (including all reports and notifications) required by 40 CFR Part 63, Subpart LLL in a form suitable and readily available for inspection for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks or on microfiche.

Ash Grove shall keep the SSM Plan on record to be made available for inspection, upon request, by the Puget Sound Clean Air Agency or EPA, for the life of the kiln and raw mill, or until the kiln/raw mill are no longer subject to the provisions of 40 CFR Part 63. If the SSM Plan is revised, Ash Grove shall keep previous (i.e. superseded) versions of the Plan on record, to be

made available for inspection, upon request, by the Puget Sound Clean Air Agency or EPA, for five years following each revision of the Plan.

The provisions of this condition supplement, and do not supersede, the general record retention requirements set forth in Condition II.D.3 above.

[40 CFR 63.10(b)(1) (5/30/03); 40 CFR 63.6(e)(3)(v) (5/30/03); 40 CFR 63.1355(a) (6/14/99)]

5. O&M Plan Recordkeeping

Ash Grove shall document all inspections, tests and other actions required by the O&M Plan, including who conducted the inspection, tests or other actions; and the date and the results of the inspection, tests or other actions including corrective actions. Inspection records may be maintained in electronic format. Ash Grove shall maintain records of all inspections, tests, and other actions required by the O&M Plan on site and available for Puget Sound Clean Air Agency review.

[Puget Sound Clean Air Agency Regulation I, Section 7.09(b)(6), 9/10/98] [WAC 173-401-615(2)(a) (10/17/02), WAC 173-434-090, 10/18/90]

6. Complaint Response Recordkeeping

Records for complaints received concerning odor, fugitive emissions or nuisance conditions must contain the following information:

a) Date and time of the complaint,

b) Name and address of the person complaining, if known,

c) Nature of the complaint,

d) Investigation efforts and the basis for conclusions reached regarding the complaint, and

e) Date, time and nature of any corrective action taken.

[Puget Sound Clean Air Agency Regulation I, Section 7.09(b)(6), 9/10/98] [WAC 173-401-615(2)(a) (10/17/02)]

7. NSPS Recordkeeping

Ash Grove shall maintain the following information for at least two years following the date of measurements, maintenance, reports and records:

a) a file of all measurements recorded by the kiln COMS and by the continuous temperature monitors installed at the inlet to each coal mill baghouse;

b) all reports of performance tests conducted under 40 CFR Part 60 and all applicable subparts;

c) all reports of performance evaluations on the kiln COMS and the coal mill temperature monitors;

d) all reports of CMS calibration checks on the kiln COMS and the coal mill temperature monitors;

e) all records of adjustments and maintenance performed on the kiln COMS and the coal mill temperature monitors;

f) all records required by Condition II.B.9 of the permit (kiln production rate and feed rate records);

g) records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the kiln and coal mills, and of the additional NSPS affected units listed in Sections I.B.2 and I.B.3 of this permit;

h) records of any malfunction any malfunction of the air pollution control equipment serving the kiln and coal mills, and of the additional NSPS affected units listed in Sections I.B.2 and I.B.3 of this permit;

i) records of any period during which the kiln COMS or a coal mill temperature monitor is inoperative;

[40 CFR §60.7(b) and (f) (2/12/99); 40 CFR 60.63(a) (12/14/88); 40 CFR 60.253(a) (10/17/00); WAC 173-401-615(2)(a) (10/17/02)]

8. NESHAP Subpart LLL Recordkeeping

Ash Grove shall maintain relevant records for the kiln and raw mill of:

a) The occurrence and duration of each startup, shutdown or malfunction of operation of the kiln and the raw mill;

b) The occurrence and duration of each malfunction of the air pollution control equipment;

c) All maintenance performed on the air pollution control equipment;

d) Actions taken during SSM periods (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the kiln SSM Plan;

e) All information necessary to demonstrate conformance with the kiln/raw mill SSM Plan when all actions taken during SSM periods (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in the SSM Plan. (The information needed to demonstrate conformance may be recorded using a checklist or other form designed to minimize the recordkeeping burden for conforming events);

f) Each period during which the kiln temperature CMS or either of the coal mill temperature CMS is malfunctioning or inoperative (including out of control periods);

g) All required measurements needed to demonstrate compliance with the dioxin/furan standards in 40 CFR 63.1343(d), as provided in 40 CFR 63.10(b)(2)(vii);

h) All results of Subpart LLL performance tests and CMS performance evaluations;

i) All measurements as may be necessary to determine the conditions of Subpart LLL performance tests and performance evaluations;

j) All CMS calibration checks;

k) All adjustments and maintenance performed on the kiln temperature CMS and on each coal mill temperature CMS;

l) Any information demonstrating whether Ash Grove is meeting the requirements for a waiver of recordkeeping or reporting requirements under 40 CFR Part 63, if Ash Grove has been granted a waiver under 40 CFR 63.10(f);

m) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test if Ash Grove has been granted such permission under 40 CFR 63.8(f)(6);

n) All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9;

o) All required temperature CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out of control periods);

p) The date and time identifying each period during which the kiln temperature CMS and each coal mill temperature CMS was inoperative except for zero (low level) and high level checks;

q) The date and time identifying each period during which the kiln temperature CMS and each coal mill temperature CMS was out of control, as defined in 40 CFR 63.8(c)(7);

r) The date and time of commencement and completion of each period of excess emissions and parameter monitoring exceedances of the dioxin/furan emission limits in Conditions EU 1.26 through 1.29 that occur during startups, shutdowns and malfunctions of the kiln/raw mill;

s) The date and time of commencement and completion of each period of excess emissions and parameter monitoring exceedances of the dioxin/furan emission limits in Conditions EU 1.26 through 1.29 that occur during periods other than SSM periods;

t) For each malfunction of the kiln, raw mill, or kiln air pollution control equipment, the nature and cause of the malfunction (if known) and the corrective action taken or preventive measures adopted

u) For each occasion on which the temperature CMS on the kiln or either coal mill temperature CMS was inoperative or out of control, the nature of the repairs or adjustments to the CMS;

v) The total kiln, raw mill and coal mill operating time during the reporting period.

[40 CFR 63.1355(b) (6/14/99); 40 CFR 63.10(b) and (c) (5/30/03)]

9. Subpart LLL Applicability Determination Recordkeeping

Ash Grove shall maintain on site records of its determination that the Seattle plant is not a Subpart LLL major source for at least five years after the determination, or until the facility changes its operations to become a major source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include the analysis that demonstrates the basis for the determination. The analysis shall be sufficiently detailed to allow EPA or the Puget Sound Clean Air Agency to make a finding about the source's applicability status with regard to the relevant standard or other requirement.

[40 CFR 63.10(b)(3) (5/30/03)]

10. SO2, CO, and NOx Mass Emission Rate Recordkeeping

Ash Grove shall maintain on site records which document the 12-month rolling total calculations for NOx emissions from the kiln, the calendar year calculations for SO2 and CO emissions from the kiln and summary 8-hour block average CO mass emission rates from the cement kiln. The records shall include the monthly calculations for each annual pollutant value, sufficient documentation to demonstrate the conversions from CEM data to mass emission rates, sufficient documentation to demonstrate the calculation methods used for mass emission rate data that is not CEM based, and documentation showing that all kiln operational time is included in the totals. The CEM data conversions used to generate mass emission rate values for these calculations shall be documented and retained with the record. Emission rate estimates used for operational periods lacking CEM data also shall be documented and retained.

[WAC 173-401-615(3), 10/17/02]

III. PROHIBITED ACTIVITIES

Ash Grove is prohibited from conducting, causing, or allowing the following activities:

A. Adjustment for Atmospheric Conditions

Varying the rate of emissions of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant is prohibited, except as directed according to air pollution episode regulations. [WAC 173-400-205, 8/20/93]

B. Open Burning

Ash Grove shall not conduct open burning during any stage of an air pollution episode or period of impaired air quality and shall not conduct any open burning other than the following types:

1. Fires consisting solely of charcoal, propane, natural gas, or wood used solely for the preparation of food that comply with WAC 173-425-020(1) and WAC 173-425-030(21) and
2. Fires for instruction in the methods of fighting fires, provided that the person conducting the training fire complies with Puget Sound Clean Air Agency Regulation I, Section 8.07.

[Puget Sound Clean Air Agency Regulation I, Sections 8.04(a), 11/09/2000 and 8.07, 9/09/1999] [WAC 173-425-020(1), 3/13/2000; WAC 173-425-030(21), 3/13/2000; RCW 70.94.743, 1998 c68 p1 and RCW 70.94.775(2), 1995 c362 p2 State/Puget Sound Clean Air Agency only]

C. Refuse Burning

Ash Grove shall not cause or allow the burning of combustible refuse except in a multiple chamber incinerator provided with control equipment. Ash Grove shall not operate refuse burning equipment any time other than daylight hours. [Puget Sound Clean Air Agency Regulation I, Section 9.05, 12/9/93]

D. Concealment

Ash Grove shall not cause or allow the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of an air contaminant which would otherwise violate Puget Sound Clean Air Agency Regulation I, Article 9 or Chapter 173-400 WAC. [Puget Sound Clean Air Agency Regulation I, Section 9.13(a), 6/9/88; WAC 173-400-040(7), 8/20/93]

E. Masking

Ash Grove shall not cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant that causes detriment to health, safety or welfare of any person or conceals or masks an emission of an air contaminant that would otherwise violate Regulation I, Article 9 or Chapter 173-400 WAC. [Puget Sound Clean Air Agency Regulation I, Section 9.13(b), 6/9/88; and WAC 173-400-040(7), 8/20/93]

F. Ambient Standards

Ash Grove shall not cause or allow the emission of air contaminants in sufficient quantity as to exceed any ambient air quality standard in Puget Sound Clean Air Agency Regulation I Section 11.01. [Puget Sound Clean Air Agency Regulation I, Section 11.01(b), 4/14/94]

G. Tampering

Ash Grove shall not render inaccurate any monitoring device or method required under Chapter 70.94 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

[WAC 173-400-105(8), 8/21/98 *STATE ONLY*]

H. False Statements

Ash Grove shall not make any false material statement, representation or certification in any form, notice, or report required under Chapter 70.94 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

[WAC 173-400-105(7), 8/21/98 *STATE ONLY*]

IV. ACTIVITIES REQUIRING ADDITIONAL APPROVAL

Ash Grove shall file notification and obtain the necessary approval from Puget Sound Clean Air Agency before conducting any of the following:

A. New Source Review

Ash Grove shall not construct, install, establish, or modify an air contaminant source, except those sources that are excluded by Puget Sound Clean Air Agency Regulation I, Section 6.03(b), unless a "Notice of Construction and Application for Approval" has been filed with and approved by Puget Sound Clean Air Agency. [Puget Sound Clean Air Agency Regulation I, Section 6.03, 7/12/01] [WAC 173-460-040 State/Puget Sound Clean Air Agency only]

B. Replacement or Substantial Alteration of Emission Control Technology

Ash Grove shall file a Notice of Construction and Application for Approval according to WAC 173-400-114 with Puget Sound Clean Air Agency before replacing or substantially altering any emission control technology installed at the facility. [Puget Sound Clean Air Agency Regulation I, Section 6.01 (11/17/05) (State/Puget Sound Clean Air Agency Only)] [WAC 173-400-114, RCW 70.94.153 (1991) State/Puget Sound Clean Air Agency only]

C. Asbestos

Ash Grove shall comply with 40 CFR 61.145 and 61.150 when conducting renovation or demolition activities at the facility. [40 CFR 61.145, 4/7/1993 and 61.150, 1/16/1991]

Ash Grove shall comply with Puget Sound Clean Air Agency Regulation III, Article 4 when conducting any asbestos project, renovation, or demolition activities at the facility. [Puget Sound Clean Air Agency Regulation III, Article 4, 7/13/00 (*State Only*)]

D. Spray Coating

Ash Grove shall comply with Puget Sound Clean Air Agency Regulation I, Section 9.16(a) when conducting or allowing any operation that involves the use of spray equipment to apply any VOC-containing material.

[Puget Sound Clean Air Agency Reg. I: 9.16 (7/12/01), State/Puget Sound Clean Air Agency only; however, will become federally enforceable when EPA incorporates it into the SIP]

V. STANDARD TERMS AND CONDITIONS

A. Duty to comply

Ash Grove shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 70.94 RCW and, for federally enforceable provisions, a violation of the Federal Clean Air Act (FCAA). Such violations are grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

[Puget Sound Clean Air Agency Regulation I, Section 7.05, 10/28/93, WAC 173-401-620(2)(a), 11/4/93]

B. Permit actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by Ash Grove for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[WAC 173-401-620(2)(c), 11/4/93]

C. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

[WAC 173-401-620(2)(d), 11/4/93]

D. Duty to provide information

Ash Grove shall furnish to the Puget Sound Clean Air Agency, within a reasonable time, any information that the Puget Sound Clean Air Agency may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, Ash Grove shall also furnish to the Puget Sound Clean Air Agency copies of records required to be kept by the permit or, for information claimed to be confidential, Ash Grove may furnish such records directly to EPA Region 10 along with a claim of confidentiality. The Puget Sound Clean Air Agency shall maintain the confidentiality of such information in accordance with RCW 70.94.205.

[WAC 173-401-620(2)(e), 11/4/93]

E. Permit fees

Ash Grove shall pay fees as a condition of this permit in accordance with the Puget Sound Clean Air Agency Regulation I, Article 7. Failure to pay fees in a timely fashion shall subject Ash Grove to civil and criminal penalties as prescribed in Chapter 70.94 RCW.

[WAC 173-401-620(2)(f), 11/4/93]

F. Emissions trading

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

[WAC 173-401-620(2)(g), 11/4/93]

G. Severability

If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable.

[WAC 173-401-620(2)(h), 11/4/93]

H. Permit appeals

This permit or any condition in it may be appealed only by filing an appeal with the Pollution Control Hearings Board and serving it on the Puget Sound Clean Air Agency within thirty days of receipt, pursuant to RCW 43.21B.310 and WAC 173-401-735. The provision for appeal in this section is separate from and additional to any federal rights to petition and review found under §505(b) of the FCAA.

[WAC 173-401-620(2)(i) and WAC 173-401-735, 11/4/93]

I. Permit continuation

This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. An application shield granted under WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete permit application has been submitted.

[WAC 173-401-620(2)(j), 11/4/93]

J. Federal enforceability

All terms and conditions of this permit are enforceable by the EPA administrator and by citizens under the FCAA, except for those terms and conditions designated in the permit as not federally enforceable.

[WAC 173-401-625, 11/4/93]

K. Inspection and entry

Upon presentation of credentials and other documents as may be required by law, Ash Grove shall allow the Puget Sound Clean Air Agency or an authorized representative to:

1. Enter Ash Grove's premises or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices or operations regulated or required under the permit; and
4. As authorized by WAC 173-400-105 and the FCAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

[WAC 173-401-630(2) (11/4/93); RCW 70.94.200 (1991) State/Puget Sound Clean Air Agency only]

L. Compliance requirements

Ash Grove shall continue to comply with all applicable requirements with which the source is currently in compliance. Ash Grove shall meet on a timely basis any applicable requirements that become effective during the permit term.

[WAC 173-401-630(3), WAC 173-401-510(2)(h)(iii) 11/4/93]

M. Compliance certifications

Ash Grove shall submit a certification of compliance with permit terms and conditions once per year. The first such certification shall cover a one-year period commencing upon the date of issuance of this permit. Each certification shall include:

1. The identification of each term or condition of the permit that is the basis of the certification;
2. The compliance status;
3. Whether compliance was continuous or intermittent; and
4. The method(s) used for determining the compliance status of the source, currently and over the reporting period. These methods must be consistent with the permit Monitoring, Maintenance and Recordkeeping Methods.

All compliance certifications shall be submitted to EPA Region 10 and to Puget Sound Clean Air Agency, at the following addresses, within 30 days after the close of the period covered by the certification:

Puget Sound Clean Air Agency
Attn.: Operating Permit Certification
1904 3rd Ave, Suite 105
Seattle, Washington 98101

EPA Region 10, Mail Stop OAQ-107
Attn.: Air Operating Permits
1200 Sixth Avenue
Seattle, Washington 98101

[WAC 173-401-630(5) 11/4/93]

N. Performance Testing

For the purpose of determining compliance with an emission standard, Puget Sound Clean Air Agency or the Washington State Department of Ecology may conduct testing of an emission unit or require Ash Grove to have it tested. In the event Puget Sound Clean Air Agency or Ecology conducts the test, Ash Grove shall be given an opportunity to observe the sampling and to obtain a sample at the same time.

[Puget Sound Clean Air Agency Regulation I, Section 3.05(b), 2/10/94; WAC 173-400-105(4), 8/20/93]

Ash Grove shall notify Puget Sound Clean Air Agency in writing at least 2 weeks (14 days) prior to any compliance test and provide Puget Sound Clean Air Agency an opportunity to review the test plan and to observe the test. Provided, Ash Grove shall provide the Puget Sound Clean Air Agency at least 30 days prior notice of any NSPS (40 CFR Part 60) performance test, and 60 days prior notice of any NESHAP (40 CFR Part 63) performance test. If there is a delay in conducting a scheduled NSPS or NESHAP performance test, Ash Grove shall notify the Puget Sound Clean Air Agency as soon as possible of any delay, in accordance with procedures specified in 40 CFR 60.8(d) (for NSPS testing) and 40 CFR 63.7(b)(2) (for NESHAP testing).

[Puget Sound Clean Air Agency Regulation I, Section 3.07(b) (2/9/95); 40 CFR 60.8(d) (2/12/99); 40 CFR 63.7(b) (10/7/00)]

If required by Puget Sound Clean Air Agency to perform a compliance test, Ash Grove shall submit a report to Puget Sound Clean Air Agency no later than 60 days after the test. The report shall include:

(a) A description of the source and the sampling location;

(b) The time and date of the test;

(c) A summary of results, reported in units and for averaging periods consistent with the applicable emission standard;

(d) A description of the test methods and quality assurance procedures employed;

(e) The amount of fuel burned and raw material processed by the source during the test;

(f) The operating parameters of the source and control equipment during the test;

(g) Field data and example calculations; and

(h) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

[Puget Sound Clean Air Agency Regulation I, Section 3.07(c) (2/9/95)]

O. Credible Evidence

For the purpose of establishing whether or not a person has violated or is in violation of any provision of chapter 70.94 RCW, any rule enacted pursuant to that chapter, or any permit or order issued thereunder, nothing in Puget Sound Clean Air Agency Regulation I shall preclude the use, including the exclusive use of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.

[Puget Sound Clean Air Agency Regulation I, Section 3.06 (10/08/98); State/Puget Sound Clean Air Agency only]

For purposes of Federal enforcement, nothing in 40 CFR Part 52 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether Ash Grove would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.

[40 CFR 52.12(c) and 52.33(a) (2/24/97)]

P. NSPS and NESHAP Performance Testing

NSPS performance tests shall be conducted and data reduced in accordance with procedures contained in 40 CFR 60.8 and in each applicable subpart of 40 CFR Part 60. Performance tests required under 40 CFR Part 63, Subpart LLL shall be conducted and data reduced in accordance with relevant procedures contained in 40 CFR 63.7 and 63.1349.

[40 CFR §60.8 (2/12/99); 40 CFR 63.7 (4/5/02); 40 CFR 63.1349 (12/6/02)]

Q. Certification of Truth, Accuracy and Completeness

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[WAC 173-401-520, 11/4/93]

R. Emergencies

An emergency, as defined in WAC 173-401-645(l), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the conditions of WAC 173-401-645(3) are met.

The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that Ash Grove can identify the cause(s) of the emergency;
2. The permitted facility was at the time being properly operated;
3. During the period of the emergency Ash Grove took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit; and
4. Ash Grove submitted notice of the emergency to the Puget Sound Clean Air Agency within two (2) working days of the time when the emissions limitations were exceeded due to the emergency or shorter periods of time specified in an applicable requirement. This notice fulfills the requirement of WAC 173-401-615(3)(b) unless the excess emissions represent a potential threat to human health or safety. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, Ash Grove has the burden of proof to establish the occurrence of an emergency. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[WAC 173-401-645, 11/4/93]

S. Unavoidable excess emissions

Excess emissions due to startup or shutdown conditions, scheduled maintenance or upsets that are determined to be unavoidable under the procedures and criteria in WAC 173-400-107 shall be excused and not subject to penalty. For any excess emission that Ash Grove wants the Puget Sound Clean Air Agency to consider unavoidable and excusable under WAC 173-400-107, Ash Grove shall submit the information required under WAC 173-400-107.

[WAC 173-400-107(2) (8/20/93)]

T. Need to halt or reduce activity not a defense

It shall not be a defense for Ash Grove in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

[WAC 173-401-620(2)(b), 11/4/93]

U. Stratospheric ozone and climate protection

1. Ash Grove shall comply with the following standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

   i) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;

   ii) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;

   iii) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

2. Ash Grove may switch from any ozone-depleting substance to any alternative approved pursuant to the Significant New Alternatives Program (SNAP), 40 CFR Part 82, Subpart G, without a permit revision but shall not switch to a substitute listed as unacceptable pursuant to such program. [40 CFR 82.174]

3. Any certified technician employed by Ash Grove shall keep a copy of their certification at their place of employment. [40 CFR 82.166(1)]

4. Ash Grove shall not willfully release any regulated refrigerant and shall use refrigerant extraction equipment to recover regulated refrigerant when servicing, repairing or disposing of commercial air conditioning, heating, or refrigeration systems.
   [RCW 70.94.970(2) and (4), 11/12/97 State/Puget Sound Clean Air Agency only]

V. RACT satisfied

Emission standards and other requirements contained in rules or regulatory orders in effect at the time of this permit issuance shall be considered RACT for the purposes of issuing this permit.

[WAC 173-401-605(3), 11/4/93]

W. Risk management programs

In accordance with 40 CFR Part 68, if Ash Grove has or receives more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, Ash Grove shall comply with the requirements of the Chemical Accident Prevention Provisions of 40 CFR Part 68 no later than the following dates:

1. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or

2. The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10, 1/6/99]

X. Definitions

Unless otherwise defined in this permit, the terms used in this permit shall have the same meaning ascribed to them in WAC 173-401-200.

[WAC 173-401-200, 10/17/02]

Y. Duty to supplement or correct application

Upon becoming aware that it has failed to submit any relevant facts in a permit application or that it has submitted incorrect information in a permit application, Ash Grove shall promptly submit such supplementary facts or corrected information to the Puget Sound Clean Air Agency.

[WAC 173-401-500(6), 10/17/02]

VI. PERMIT ACTIONS

A. Permit Renewal, Revocation and Expiration

1) **Renewal application**. Ash Grove shall submit a complete permit renewal application to the Puget Sound Clean Air Agency no later than 12 months prior to the expiration of this permit. Puget Sound Clean Air Agency will send Ash Grove a renewal application no later than 18 months prior to the expiration of this permit. Failure of the Puget Sound Clean Air Agency to send Ash Grove a renewal application shall not relieve Ash Grove from the obligation to file a timely and complete renewal application.

   [WAC 173-401-710(1), WAC 173-401-500(2), 10/17/02]

2) **Expired permits**. Permit expiration terminates Ash Grove's right to operate unless a timely and complete renewal application has been submitted consistent with WAC 173-401-710(1) and WAC 173-401-500. All terms and conditions of the permit shall remain in effect after this permit expires if a timely and complete permit application has been submitted.

   [WAC 173-401-710(3), 10/17/02]

3) **Revocation of permits**. Puget Sound Clean Air Agency may revoke a permit only upon the request of Ash Grove or for cause. Puget Sound Clean Air Agency shall provide at least thirty days written notice to Ash Grove prior to revocation of the permit or denial of a permit renewal application. Such notice shall include an explanation of the basis for the proposed action and afford Ash Grove an opportunity to meet with the Puget Sound Clean Air Agency prior to the Puget Sound Clean Air Agency's final decision. A revocation issued under this condition may be issued conditionally with a future effective date and may specify that the revocation will not take effect if Ash Grove satisfies the specified conditions before the effective date. Nothing in this subsection shall limit the Puget Sound Clean Air Agency's authority to issue emergency orders.

   [WAC 173-401-710(4), 10/17/02]

B. Administrative Permit Amendments

1) **Definition.** An "administrative permit amendment" is a permit revision that:
   a) Corrects typographical errors;
   b) Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at Ash Grove;
   c) Requires more frequent monitoring or reporting by Ash Grove;
   d) Allows for a change in ownership or operational control of a source where the Puget Sound Clean Air Agency determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Puget Sound Clean Air Agency;
   e) Incorporates into the permit the terms, conditions, and provisions from orders approving notice of construction applications processed under an EPA-approved program, provided

that such a program meets procedural requirements substantially equivalent to the requirements of WAC 173-401-700, 173-401-725, and 173-401-800 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in WAC 173-401-600 through 173-401-650.

[WAC 173-401-720(1), 11/4/93]

2) **Administrative permit amendment procedures**. An administrative permit amendment may be made by the Puget Sound Clean Air Agency consistent with the following:

a) Puget Sound Clean Air Agency shall take no more than sixty days from receipt of a request for an administrative permit amendment to take final action on such request, and may incorporate such changes without providing notice to the public or affected states provided that it designates any such permit revisions as having been made pursuant to this paragraph.

b) Puget Sound Clean Air Agency shall submit a copy of the revised permit to EPA.

c) Ash Grove may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

[WAC 173-401-720(3), 11/4/93]

3) **Permit shield**. Puget Sound Clean Air Agency shall, upon taking final action granting a request for an administrative permit amendment, allow coverage by the permit shield in WAC 173-401-640 for administrative permit amendments made pursuant to Part (1)(e) of this condition.

[WAC 173-401-720(4), 11/4/93]

C. Changes not Requiring Permit Revisions

1) **General**.

a) Ash Grove is authorized to make the changes described in this section without a permit revision, providing the following conditions are met:

i) The proposed changes are not Title I modifications as defined in WAC 173-401-200;

ii) The proposed changes do not result in emissions which exceed those allowable under the permit, whether expressed as a rate of emissions, or in total emissions;

iii) The proposed changes do not alter permit terms that are necessary to enforce limitations on emissions from units covered by the permit; and

iv) Ash Grove provides EPA and the Puget Sound Clean Air Agency with written notification at least seven days prior to making the proposed changes except that written notification of a change made in response to an emergency shall be provided as soon as possible after the event.

b) Permit attachments. Ash Grove and the Puget Sound Clean Air Agency shall attach each notice to their copy of the relevant permit.

2) **Section 502 (b)(10) changes**. Pursuant to the conditions in Subsection (1) of this section, Ash Grove is authorized to make Section 502(b)(10) changes (as defined in WAC 173-401-200) without a permit revision.

a) For each such change, the written notification required under Subsection (1)(a)(iv) of this condition shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

b) The permit shield authorized under WAC 173-401-640 shall not apply to any change made pursuant to this paragraph.

3) **SIP authorized emissions trading.** Pursuant to the conditions in Subsection (1) of this condition, Ash Grove is authorized to trade increases and decreases in emissions in the permitted facility, where the Washington state implementation plan provides for such emissions trades without requiring a permit revision. This provision is available in those cases where the permit does not already provide for such emissions trading.

a) Under this Subsection (3), the written notification required under Subsection (1)(a)(iv) of this condition shall include such information as may be required by the provision in the Washington state implementation plan authorizing the emissions trade, including at a minimum, when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which Ash Grove will comply using the emissions trading provisions of the Washington state implementation plan, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which Ash Grove will comply in the applicable implementation plan and that provide for the emissions trade.

b) The permit shield described in WAC 173-401-640 shall not extend to any change made under this paragraph. Compliance with the permit requirements that Ash Grove will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade.

[WAC 173-401-722, 10/17/02]

D. Off Permit Changes

1) Ash Grove shall be allowed to make changes not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided that the proposed changes do not weaken the enforceability of existing permit conditions. Any change that is a Title I modification or is a change subject to the acid rain requirements under Title IV of the FCAA must be submitted as a permit revision.

2) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

3) Ash Grove must provide contemporaneous written notice to the Puget Sound Clean Air Agency and EPA of each such change, except for changes that qualify as insignificant under WAC 173-401-530. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

4) The change shall not qualify for the permit shield under WAC 173-401-640.

5) Ash Grove shall keep a record describing changes made at Ash Grove that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

6) When making a change under this section, Ash Grove shall comply with applicable preconstruction review requirements established pursuant to RCW 70.94.152 and Puget Sound Clean Air Agency Regulation I, Article 6.

[WAC 173-401-724, 11/4/93]

E. Permit Modification

1) **Definition**. A permit modification is any revision to this permit that cannot be accomplished under provisions for administrative permit amendments under WAC 173-401-720.

2) **Procedures**. Minor permit modification procedures.

a) Criteria.

i) Minor permit modification procedures shall be used for those permit modifications that:

a) Do not violate any applicable requirement;

b) Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

c) Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

d) Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that Ash Grove has assumed to avoid an applicable requirement to which Ash Grove would otherwise be subject. Such terms and conditions include:

(1) A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the FCAA; and

(2) An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the FCAA;

e) Are not modifications under any provision of Title I of the FCAA;

ii) Notwithstanding (a)(i) of this subsection, and Subsection (3) of this section, the Puget Sound Clean Air Agency may allow the use of minor permit modification procedures for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that the use of such minor permit modification procedures is explicitly provided for in the Washington state implementation plan or in applicable requirements promulgated by EPA and in effect on April 7, 1993.

b) Application. An application requesting the use of minor permit modification procedures shall meet the requirements of WAC 173-401-510 and shall include the following:

i) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

ii) Ash Grove's suggested draft permit;

iii) Certification by a responsible official, consistent with WAC 173-401-520, of the truth, accuracy, and completeness of the application and that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

iv) Completed forms for the Puget Sound Clean Air Agency to use to notify EPA and affected states as required under WAC 173-401-810 and 173-401-820.

c) Ash Grove's ability to make change. Ash Grove may make the change proposed in its minor permit modification application immediately after it files such application provided that those changes requiring the submissions of a notice of construction application have been reviewed and approved by the Puget Sound Clean Air Agency. After Ash Grove makes the change allowed by the preceding sentence, and until the Puget Sound Clean Air Agency takes any of the actions specified in WAC 173-401-725(d), Ash Grove must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, Ash Grove need not comply with the existing permit terms and conditions it seeks to modify. However, if Ash Grove fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

d) Permit shield. The permit shield under WAC 173-401-640 shall not extend to minor permit modifications.

3) **Group processing of minor permit modifications.** Consistent with WAC 173-401-725(3), the Puget Sound Clean Air Agency may process groups of a source's applications for certain modifications eligible for minor permit modification processing.

4) **Significant modification procedures**.

a) Criteria. Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative permit amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing herein shall be construed to preclude Ash Grove from making changes consistent with Chapter 173-401 WAC that would render existing permit compliance terms and conditions irrelevant.

b) Significant permit modifications shall meet all requirements of Chapter 173-401 WAC, including those for applications, public participation, review by affected states, and review by EPA, as they apply to permit issuance and permit renewal. Puget Sound Clean Air Agency shall complete review on the majority of significant permit modifications within nine months after receipt of a complete application.

[WAC 173-401-725, 11/4/93]]

F. Reopening for Cause

1) **Standard provisions.** This permit shall be reopened and revised under any of the following circumstances:

a) Additional applicable requirements become applicable to Ash Grove with a remaining permit term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j);

b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;

c) Puget Sound Clean Air Agency or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

d) Puget Sound Clean Air Agency or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

2) **Procedures**. Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

3) **Notice**. Reopenings under this section shall not be initiated before a notice of such intent is provided to Ash Grove by the Puget Sound Clean Air Agency at least thirty days in advance of the date that the permit is to be reopened, except that the Puget Sound Clean Air Agency may provide a shorter time period in the case of an emergency.

[WAC 173-401-730, 11/4/93]

VII. PERMIT SHIELD

Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements contained in Sections I through VI of this permit that are specifically identified in this permit as of the date of permit issuance. [WAC 173-401-640(1)]

Nothing in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the FCAA (emergency orders), including the authority of the administrator under that section;

(2) The liability of an owner or operator of Ash Grove for any violation of applicable requirements prior to or at the time of permit issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the FCAA;

(4) The ability of EPA to obtain information from a source pursuant to Section 114 of the FCAA; or

(5) The ability of Puget Sound Clean Air Agency to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in Chapter 252, Laws of 1993.

[WAC 173-401-640(4), 11/4/93]

VIII. INAPPLICABLE REQUIREMENTS

As of the date of permit issuance, the requirements listed below do not apply to Ash Grove, or to the specific emission units specified below for the reasons indicated. The permit shield applies to all requirements so identified.

[WAC 173-401-640(2), 11/4/1993]

Citation	Type of Requirement	Basis for Non-applicability
RCW 70.94.531	Transportation Demand Management	This section requires, within 6 months after King County's adoption of a commute trip reduction plan, employers develop a trip reduction program and submit the program to the Puget Sound Clean Air Agency for review. This section is not an applicable requirement because it applies only to "major employers" that employ 100 or more full-time employees at a single work site who begin their work day between 6:00 a.m. and 9:00 a.m. Ash Grove does not employ 100 or more workers; therefore, it is not an applicable requirement. This requirement does not apply to emission units or stationary sources.
WAC 173-400-040(3)(b) and (8)(b)	Fugitive emission standards for emission units identified as "a significant contributor to the nonattainment status of a designated nonattainment area	There are no designated nonattainment areas in the vicinity of the Seattle plant, and no emission unit at the Seattle plant has been identified as a "significant contributor" to the nonattainment status of a designated nonattainment area.
WAC 173-400-075 (except asbestos NESHAPS)	Emissions Standards for Sources Emitting Hazardous Air Pollutants	This requirement adopts the national emissions standards for hazardous air pollutants in 40 CFR Part 61 by reference and gives Ecology authority to conduct source tests and access to records to determine compliance. WAC 173-400-075 is not an applicable requirement because none of the subparts of 40 CFR Part 61 applies to any emissions unit at Ash Grove.
WAC 173-400-151	Retrofit Requirements for Visibility Protection	This is inapplicable because Ecology has not identified Ash Grove as a source causing or contributing to impaired visibility in a Class I area. If Ecology makes such a determination, Puget Sound Clean Air Agency will reopen the permit.
WAC 173-434 Solid Waste Incinerator Facilities (as amended on 12/22/03)	Emission and operational limits for solid waste incinerator facilities	WAC 173-434 (as amended on December 22, 2003) does not apply to Ash Grove because the amendments exempt from the coverage of WAC ch. 173-434 the only solid waste materials that Ash Grove currently is authorized to combust. The previous 10/18/90 version of WAC 173-434 was superseded with the approval the current

Citation	Type of Requirement	Basis for Non-applicability
		version into the Washington State Implementation Plan, effective September 6, 2005
WAC 173-435	Emergency Episode Plans	This chapter is not an applicable requirement until it is triggered by a request from Ecology to prepare a Source Emission Reduction Plan (SERP). Absent a request for a SERP, nothing in this chapter (except WAC 173-435-050(2)) imposes substantive requirements on sources.
WAC 173-435-050(2)	Action Procedures	Subsection (2) is not an applicable requirement because Ash Grove's operations do not include open burning. The other subsections are not applicable requirements, because they do not impose substantive requirements on facilities.
WAC 173-470	Ambient Air Quality Standards for Particulate Matter	Ambient air quality standards are not "applicable requirements" [See WAC 173-401-200(4)(a)(xii) (10/17/02); 57 Fed. Reg. 32276 (July 22, 1992)].
WAC 173-474	Ambient Air Quality Standards for Sulfur Oxides	Ambient air quality standards are not "applicable requirements" [See WAC 173-401-200(4)(a)(xii) (10/17/02); 57 Fed. Reg. 32276 (July 22, 1992)].
WAC 173-475	Ambient Air Quality Standards for Carbon Monoxide, Ozone, and Nitrogen Dioxide	Ambient air quality standards are not "applicable requirements" [See WAC 173-401-200(4)(a)(xii) (10/17/02); 57 Fed. Reg. 32276 (July 22, 1992)].
WAC 173-480	Ambient Air Quality Standards and Emission Limits for Radionuclides	Ambient air quality standards are not "applicable requirements" [See WAC 173-401-200(4)(a)(xii) (10/17/02); 57 Fed. Reg. 32276 (July 22, 1992)]. These standards are also not applicable requirements because Ash Grove does not emit radionuclides.
WAC 173-481	Ambient Air Quality and Environmental Standards for Fluorides	Ambient air quality standards are not "applicable requirements" [See WAC 173-401-200(4)(a)(xii) (10/17/02); 57 Fed. Reg. 32276 (July 22, 1992)].
Puget Sound Clean Air Agency Reg. I: Article 5	Registration	This section will not be applicable because Title V permitted sources are not subject to these registration and reporting requirements per RCW 70.94.161(17).
Puget Sound Clean Air Agency Reg. I: 9.04(e) (04/9/98)	Venturi Scrubber	This section does not apply because Ash Grove does not operate a Venturi scrubber and Ash Grove will apply for a permit modification before installation.

Citation	Type of Requirement	Basis for Non-applicability
Puget Sound Clean Air Agency Reg. I: 12.02(b) (08/10/89)	Wet Control Equipment	This section is not an applicable requirement because Ash Grove does not use wet control equipment, and Ash Grove will apply for a permit modification before installation.
Puget Sound Clean Air Agency Reg. I: 12.03(c) (08/10/89)	Pressure Loss Through Scrubbers	This section is not applicable because Ash Grove does not use scrubbers.
Puget Sound Clean Air Agency Reg. I: 12.03(d) (08/10/89)	Scrubber Liquid Supply Rate	This section is not applicable because Ash Grove does not use scrubbers.
Puget Sound Clean Air Agency Reg. I: 12.04(b) (08/10/89)	Recordkeeping for Scrubber Operations	This section is not applicable because Ash Grove does not use scrubbers.
Puget Sound Clean Air Agency Reg. II: Articles 1, 2 & 3	Gasoline Marketing & VOC Standards	These sections are not applicable because Ash Grove does not have equipment that is governed by this regulation.
Puget Sound Clean Air Agency Reg. III: Articles 3	Chromium Standards	This section is inapplicable because Ash Grove does not have any of the listed equipment and must obtain approval before installing this type of equipment.
PSD Permit 90-03 (6/20/90) and Amendments 1 (11/7/95) and 2 (3/8/99)	PSD Permit	These versions of Permit 90-03 were superseded by Amendment 3 (10/8/01).
Puget Sound Clean Air Agency Approval Orders 3382, 5730 and 7381 (6/29/98)	New source approval orders	Superseded by Order of Approval 7381, condition 8 (6/6/01)
40 CFR Part 60, Subpart OOO	NSPS for Nonmetallic Mineral Processing Plants	40 CFR 60.670(b) states that a Subpart OOO "affected facility" that is subject to Subpart F or that follows in the plant process any facility subject to Subpart F is not subject to Subpart OOO. All equipment at the Seattle plant that falls within the Subpart OOO definition of "affected facility" is also a Subpart F "affected facility."

Citation	Type of Requirement	Basis for Non-applicability
The requirements that are identified below are inapplicable for specific emission units or for rule and unit specific reasons. The requirements identified in the first column for these subsequent items are inapplicable only insofar as the scope and explanation provided in the third column qualifies the limitation of inapplicability and are not universally inapplicable to the entire site or for this permit beyond that scope and explanation.		
40 CFR Part 60, Subpart A	NSPS reporting requirements	NSPS notices and reports required by Subparts A, F, and Y need be submitted only to Puget Sound Clean Air Agency without parallel submittal copies to EPA. Letter of February 5, 2003 from Betty Weise, EPA Region 10 to Dennis McLerran. EPA retains responsibility for review and approval of major changes to NSPS monitoring and test methods, as described in the February 5th letter.
40 CFR 60 Part 60, Subpart F	NSPS for Portland Cement Plants	Clinker storage shed, finish mills, steel scale tanks and Group I and Group II silos are not Subpart F "affected facilities" because none of these facilities were constructed or modified after August 17, 1971. 40 CFR 60.60(b) (7/25/77).
40 CFR 60.63(b)	COMS requirement	Requirement to install COMS on "each bypass stack" does not apply to the coal mill stacks because coal mills are subject to 40 CFR Part 60, Subpart Y opacity limit, rather than Subpart F. See Memo of 4/6/95 from John Rasnic to EPA Regional Directors re Opacity at Portland Cement Plants (Applicability Determinations 9600073) and Memo of 5/12/95 from John Rasnic (Applicability Determinations 9600082).
40 CFR 60.13; 40 CFR 60.253(b)	NSPS performance specifications and QA/QC requirements for continuous monitoring systems	40 CFR 60.13 does not apply to the temperature monitors required to be installed on the coal mill stacks by 40 CFR 60.253(a)(1) because 60.13 requirements take effect "upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part," and no performance specs have been promulgated under 40 CFR Part 60, Appendix B for continuous temperature monitors.
40 CFR Part 60, Subpart Y	NSPS Standards for Coal Preparation Plants	Coal loading, transfer and storage equipment upstream of the Raw Coal Silo are not Subpart Y "affected facilities." See EPA Applicability Determinations Y002 (2/24/77) and NR90 (10/29/90)
40 CFR Part 63, Subparts A and LLL	MACT standards for Portland cement Plants	All Subpart A and Subpart LLL standards that apply to emission units at a "major source" do not

Citation	Type of Requirement	Basis for Non-applicability
(Major Source Provisions)		apply to the Seattle plant because the Seattle plant is not a "major source" within the meaning of 40 CFR 63.2.
40 CFR Part 63, Subparts A and LLL (Notifications & Reports)	MACT standards for Portland cement plants	All Subpart A and LLL requirements to submit notifications and reports to EPA do not apply to the Seattle plant, because EPA waived notice in its delegation action to Puget Sound Clean Air Agency. See 65 Fed. Reg. 10392 (2/28/00). All requirements in Subparts A and LLL to serve notifications and reports on "the Administrator" or EPA are amended to designate Puget Sound Clean Air Agency as the recipient.
40 CFR 63.7 and 63.1349(a) and (b)	MACT initial performance test requirements	The requirement to conduct a performance test to demonstrate initial compliance with the dioxin/furan emission standards in 40 CFR 63.1343(d) was satisfied on October 22-24, 2002 The test report and compliance notification were submitted on December 20, 2002.
40 CFR 63.9 (b) through (d) and 63.1353(b)(1)	MACT initial notification requirements	Subpart A and LLL initial notification requirements for the kiln/raw mill were satisfied by the letter of October 7, 1999 from Henrik Voldbaek to Tom Fitzsimmons et al..
40 CFR 63.1350(g)	Dioxin/furan monitoring requirements for kilns that employ carbon injection as an emission control technique	The Seattle plant does not employ carbon injection as an emission control technique.
40 CFR 63.1351(b)	Subpart LLL compliance date for affected sources that commence new construction or reconstruction after March 24, 1998	Ash Grove did not commence new construction or reconstruction on any Subpart LLL affected source after March 24, 1998.
40 CFR 63.1344(b)	Temperature limit for affected sources determined through performance test	The procedure in 40 CFR 1344(b) to set the temperature limit for affected sources through measurements taken during dioxin/furan performance testing does not apply to the coal mills, because Puget Sound Clean Air Agency approved an intermediate monitoring change establishing the coal mill temperature limit at 200 degrees F. See letter of October 18, 2002 from Steven Van Slyke to Robert Vantuyl.

IX. INSIGNIFICANT EMISSION UNITS

A. Insignificant Emission Units and Activities

1. Insignificant emission units and activities at Ash Grove are subject to all applicable requirements set forth in Sections I.A, III and IV. This permit shall not require testing, monitoring, reporting or recordkeeping for insignificant emission units or activities except as required by Puget Sound Clean Air Agency Regulation I, Sections 7.09(b) and 9.20. Compliance with Puget Sound Clean Air Agency Regulation I, Sections 7.09(b) and 9.20 shall be deemed to satisfy the requirements of WAC 173-401-615 and 173-401-630(1).

   [WAC 173-401-530(2)(c), 10/17/02]

2. Where this permit does not require testing, monitoring, recordkeeping and reporting for insignificant emissions units or activities, Ash Grove may certify continuous compliance if there were no observed, documented, or known instances of noncompliance during the reporting period. Where this permit requires testing, monitoring, recordkeeping and reporting for insignificant emission units or activities, Ash Grove may certify continuous compliance when the testing, monitoring, and recordkeeping required by the permit revealed no violations during the period, and there were no observed, documented, or known instances of noncompliance during the reporting period.

   [WAC 173-401-530(2)(d), 10/17/02]

3. An emission unit or activity that qualifies as insignificant solely on the basis of WAC 173-401-530(1)(a) shall not exceed the emission thresholds specified in WAC 173-401-530(4) until this permit is modified pursuant to Section VI.E of this permit and WAC 173-401-725.

   [WAC 173-401-530(6), 10/17/02]

As of the date of permit issuance, the emission units listed below are defined as insignificant for the reasons indicated.

Unit	Basis for IEU Designation
Lubricating oil storage tanks	WAC 173-401-532 (3)
Vehicle maintenance	WAC 173-401-532 (7)
Internal combustion engines for propelling or powering a vehicle	WAC 173-401-532(10)
Welding equipment	WAC 173-401-532(12)
Cleaning and sweeping of streets and paved surfaces	WAC 173-401-532(35)
Roads (sweep and water for dust control)	WAC 173-401-532(35)
Steam cleaner	WAC 173-401-532(39)
Kerosene, grease, and oil drums	WAC 173-401-532(42)

Unit	Basis for IEU Designation
Truck wash	WAC 173-401-532(45)
Window air conditioners	WAC 173-401-532(46)
Bathroom vents	WAC 173-401-532(48)
Fuel and exhaust emissions from vehicles in parking lots	WAC 173-401-532(54)
Staff vehicles	WAC 173-401-532(54)
Air compressor (electric)	WAC 173-401-532(88)
Diesel Fuel Tank (kiln drive standby) 185 gal	WAC 173-401-533(2)(a)
Underground Diesel Fuel Tank 2000 gal	WAC-173-401-533(2)(c)
Lignite Tank	WAC-173-401-533(2)(c)
Finish Grinding Aid Tank	WAC-173-401-533(2)(c)
Space Heaters <5 MMBtu/hr	WAC 173-401-533(2)(r)
Underground Gasoline tank 1000 gal	WAC 173-401-533(2)(t)
Safety-Kleen station	WAC 173-401-533(2)(z)
Calibration gases (for equipment)	WAC 173-401-533(3)(c)

X. APPENDIXES

A. Reference Methods (by reference only, not attached)

(1) EPA Method 5 [40 CFR 60, Appendix A, July 1, 2002]

(2) EPA Method 9 [40 CFR 60, Appendix A, July 1, 2002]

(3) EPA Method 10 [40 CFR 60, Appendix A, July 1, 2002]

(4) EPA Method 7E [40 CFR 60, Appendix A, July 1, 2002]

(5) EPA Method 6C [40 CFR 60, Appendix A, July 1, 2002]

(6) EPA Method 23 [40 CFR 60, Appendix A, July 1, 2002]

(7) EPA Method 20.A [40 CFR 51, Appendix M, July 1, 2001]

B. Non-EPA Test Methods (attached)

(1) Puget Sound Clean Air Agency Method 5 as approved by Puget Sound Clean Air Agency Board Resolution 540 dated August 11, 1983

(2) Ecology Method 9A

C. Reference Continuous Emission Monitoring Performance Specification (by reference only, not attached)

(1) EPA Performance Specification 1 (Opacity Monitoring), [40 CFR 60, Appendix B, July 1, 1992]

(2) EPA Performance Specification 2 (SO2 and NOx Monitoring) [40 CFR 60, Appendix B, July 1, 1992]

(3) EPA Performance Specification 3 (O2 Monitoring) [40 CFR 60, Appendix B, July 1, 1992]

(4) EPA Performance Specification 4 (CO Monitoring) [40 CFR 60, Appendix B, July 1, 1992]

D. EPA Quality Assurance Procedures (attached)

Continuous Emission Monitoring for Opacity: "Recommended Quality Assurance Procedures for Opacity Continuous Monitoring Systems" (EPA 340/1-86-010)

E. Elements of Opacity COMS Summary Report for 40 CFR 60.7(d) (Condition II.C.5)

Pollutant: Opacity; Reporting period dates; Company name and address; Process unit(s) description; Emission limits; Monitor manufacturer and model no.; Date of latest CMS Certification or Audit; Total source operating time in reporting period[1]

Include with the Emission Data Summary[1]:

1. The duration of excess emissions in reporting period that was due to: (a) Startup/Shutdown, (b) Control equipment problems, (c) Process problems, (d) Other known causes, and (e) Unknown causes;

2. The total duration of excess emission; and

3. [Total duration of excess emissions]/[Total source operating time]*(100) = %[2]

Include with the CMS Performance Summary[1]:

1. The CMS downtime in reporting period due to: (a) Monitor equipment Malfunctions, (b) Non-Monitor equipment Malfunctions, (c) Quality assurance calibration, (d) Other known causes, and (e) Unknown causes;

2. The Total CMS Downtime; and

3. Total CMS Downtime/[Total operating time]*(100) = %[2]

Describe any changes since last quarter in CMS, process or controls.
Certify that the information attained in the report is true, accurate, and complete.
Include Name and Signature (Title) of the responsible official and Date

1. For Opacity, record all times in minutes. For gases, record all times in hours.

2. For the reporting period: If the total duration of excess emissions is ≥ 1% or the total CMS downtime is ≥ 5% of the total operating time, both the summary report form and the excess emission report described in 60.7(c) shall be submitted.