1. **Identity of Appealing Parties and Representatives**

The appealing party is:

National Parks Conservation Association  
1200 5th Ave – suite 1118  
Seattle, WA  98101  
(206)903-1125

The representatives of the appealing party are:

Janette K. Brimmer  
Earthjustice  
705 2nd Avenue, Suite 203  
Seattle, WA 98104  
(206)343-7340  
jbrimmer@earthjustice.org

2. **Identification of Other Parties**

The respondent in this appeal is the Washington State Department of Ecology. The permittee is BP West Coast Products, LLC (Cherry Point refinery).

3. **Decision Under Appeal**

This is an appeal of Air Emission Prevention of Significant Deterioration Permit No. 16-
01, BP West Coast Products LLC, BP Cherry Point Refinery, issued by the Washington Department of Ecology on May 23, 2017 (the “Permit”). A copy of the Permit is attached.

4. Short and Plain Statement Showing Grounds for Appeal

The Permit is contrary to state and federal Clean Air Act requirements and regulations requiring BACT for nitrogen oxides, sulfur dioxides and greenhouse gases, and is arbitrary and capricious because it is not supported by the record before the Department of Ecology. The Permit is also contrary to law in that it failed to adequately respond to the finding of adverse effects by the National Park Service and failed provide required public notice and comment on the issue of adverse impacts to area National Parks as determined and found by the National Park Service.

5. Statement of Facts and Preliminary Identification of Issues

A. The Project

The Permit concerns installation of new coker heaters and new isolation valves and bypasses at the crude preheat system of the BP Cherry Point refinery near Ferndale, Washington (the “Project”). These changes will increase capacity of both the coking units and the crude preheat system, allowing an increase in production and throughput at almost all refinery processes. The new coker heaters and the attendant changes are to allow Cherry Point to process more crude by increasing production and processing a more diverse slate of crudes, likely including heavier crudes from Western Canada. BP estimates that the coker heater project will allow the refinery to process 4% more crude oil, just under 9,000 more barrels per day.

While the Project is described as replacement of the coker heaters, in fact, the Project includes many other changes and actions throughout the refinery, including revising the main fractionator overhead accumulator, installing a lean oil absorption system with a compressor in
the coker off gas system, and installing additional bypasses on four existing heat exchangers in the crude unit preheat system. Further, it appears additional changes are occurring to replace the boiler feedwater circulation pump for the coker heaters, and to change the main fractionator accumulator for additional sour water generation associated with online spalling capability (also related to the new coker heaters).

BP projects a 22% increase in annual coker utilization as part of the Project, with proportional increases in coker off-gas production and coker unit intermediates. The Project will increase coker off-gas which will be used at the refinery. The increased amount of coker off-gas, which is high in sulfur content, added to the refinery fuel mix, will increase sulfur dioxide ("SO2") emissions at heaters and processes at the refinery. BP also projects an 18% increase in annual calcined coke throughput after the coker heaters are replaced. In addition, BP projects increases a 1.4% increase in crude throughput as a result of the new coker heaters with the online cleaning capability and a 2.4% increase in crude processing due to the installation of new isolation valves on ten existing heat exchangers and installing new bypasses on four existing heat exchangers, which will allow for cleaning heat exchangers online. Overall, BP has projected a 4% increase in crude processing as a result of the project, which will result in significantly more heavy crudes processed at the refinery and which will significantly increase pollutants emitted from the refinery including nitrogen oxides ("NOx"), SO2, and greenhouse gases ("GHGs").

Ecology has estimated that the Project will increase pollutants by 266 tons per year ("tpy") for NOx, 221 tpy for SO2, and 1,097,792 tpy of GHG, among other pollutant increases.

B. General Legal Background for Permitting Requirements

Under the Clean Air Act and U.S. Environmental Protection Agency ("EPA") regulations, any major modification to a major stationary source must obtain a pre-construction...
Prevention of Significant Deterioration ("PSD") permit. 42 U.S.C. §§ 7475, 7479; 40 C.F.R. § 52.21(2); WAC 173-400-720. In determining whether a proposed modification is "major," the project proponent and regulating agency must determine whether the project will result in a significant emissions increase and, if so, whether it will also result in a significant net emissions increase. For any new emissions units like coker heaters, the increase in emissions is based on the heater’s Potential to emit—the maximum capacity to emit any air pollutant, based on the source’s physical design and operational limitations. 40 C.F.R. § 52.21(b)(4). See, In re Peabody Western Coal Co., 12 E.A.D. 22 (Env’t’l Appeals Bd. 2005) 2005 WL 428833 at *7.

When a project will increase emissions from both new and existing emission units, the determination is based on the sum of the potential emissions increases from the new units and the projected actual emission increases for the existing units. 40 C.F.R. § 52.21(a)(iv)(f). Once it is determined that a modification is a major modification requiring a PSD permit, the project proponent and Ecology must determine and require Best Available Control Technology ("BACT") for any emissions unit where a net emissions increase is projected as a result of a physical or operational change at the unit. 42 U.S.C. §§ 7475, 7479; 40 C.F.R. § 52.21(j)(3).

Additional requirements apply in situations where, as here, the source affects, or will affect, Class I areas such as designated national parks or wildernesses. Cherry Point refinery is within the airshed of North Cascades, Olympic, and Mount Rainier National Parks. These are Class I areas for which the Clean Air Act requires the greatest level of air quality protection. The Clean Air Act provides that Federal Land Managers, including the National Park Service, have an affirmative responsibility to manage Class I areas, to protect Air Quality Related Values ("AQRVs"), including visibility, and to consider, in consultation with the state and/or EPA,
whether a proposed major facility or modification will have an adverse impact on those values.


In analyzing impacts from the Project for potential adverse effects on AQRVs, EPA has made clear that “actual emissions” as defined in the PSD rules must be used to determine air quality impacts, not the “netting” procedures for determining PSD applicability. 67 Fed. Reg. 80,186, 80,189, 80,191, and 80,196 (Dec. 31, 2002); 40 C.F.R. §§52.21(b)(16) and (21), (k), and (p). The determination of actual emissions from existing emissions units before the Project requires that a unit’s actual emissions be based on a consecutive 24-month period immediately preceding the change in question, unless a reviewing authority allows use of another time period upon a determination that the alternative time period is more representative. Id. at 80,192. The actual emissions with the project are the PTE/allowable emission increase over the averaging time being modeled (e.g., 24-hour averaging time for visibility impacts on Class I areas).

If the National Park Service determines and certifies that the modification will have an adverse impact on AQRVs, Ecology must consider the analysis and finding and if they agree, cannot issue the permit absent mitigation of the impact of the AQRV with enforceable permit requirements. See 40 C.F.R. § 52.21(p)(4). See also, WAC 173-400-117. If Ecology disagrees and chooses to nonetheless issue the permit, Ecology must explain its decision disregarding the National Park Service in detail and support the decision with record evidence. Id. at 51.307(a)(3). See also, In the Matter of Hadson Power 14, 4 E.A.D. 258 (Env’tl Appeals Bd., 1992). In addition, Ecology must provide the public with notice of the Park Service’s findings and recommendation, its disagreement, rationale and detail for the disagreement, and provide the public an opportunity to comment. As part of this overall process, Ecology is required to give its proposed decision and any information supporting it, to the National Park Service 60 days before
any public hearing in order to give the National Park Service adequate time to assess the decision and provide additional comment, modeling, findings, or other information.\(^2\)

**C. The Permit and Preliminary Issues**

**Adverse impacts to National Parks**

Ecology determined that the proposed changes to Cherry Point from the Project require a major modification PSD permit under the Clean Air Act as the proposed changes will significantly increase criteria pollutants across the board. On December 15, 2016, in compliance with their affirmative obligation to protect air quality related values at national parks, the National Park Service issued an adverse impact determination to Ecology notifying the agency that the BP Project would degrade the visibility at North Cascades and Olympic National Parks. NPS projected that the expansion will increase the number of poor visibility days from 54 to 70 at Olympic and from 38 to 54 at North Cascades. NPS also found that the increased emissions would worsen the deposition of nitrogen at both parks, which would affect already nitrogen burdened, sensitive resources like lichen and herbaceous plant biodiversity. Under the Clean Air Act and Washington SIP, Ecology must not issue a PSD permit for which a Federal Land Manager has found an adverse impact on AQRVs, unless Ecology finds that the FLM’s analysis does not demonstrate that the project will adversely impact AQRVs and unless Ecology explains its decision and provides public notice and comment on that decision. WAC §173-400-117(5)(c); 40 C.F.R. §52.21(p)(3) and (4); 42 U.S.C. §7475(d)(2)(C)(ii). While Ecology has rejected NPS’ concerns and findings, Ecology has not explained its disagreement, has not based its disagreement on record evidence, and has not made the explanation or evidence available to the NPS and the public for comment. Rather, Ecology essentially rejected the NPS concerns in

\(^2\) Washington has incorporated the entirety of the federal requirements into Washington’s State Implementation Plan (“SIP”) through WAC 173-400-770(4)(a)(vi) and WAC 173-400-117.
its response to comments issued with the final permit on May 23, 2017). Ecology did not provide any rational basis for rejecting the FLM’s adverse impact determination, which the EPA Environmental Appeals Board has stated is a basic requirement for a permitting authority to justify a rejection of an adverse impact determination issued by a Federal Land Manager. *In the Matter of Hadson Power 14*, 4 E.A.D. 258 (Env’tl Appeals Bd., 1992).

Appellants also provided comments on the proposed PSD permit in December of 2016. Appellants joined the NPS in arguing for more stringent controls to protect AQRVs in Olympic and North Cascade National Parks, while also pointing out that Washington’s SIP is legally flawed because it provided less protection than federal law and EPA requirements. Ecology has apparently rejected the National Park Service’s finding of adverse impact to two National Parks from BP’s Cherry Point emissions, but did so without providing the required rational basis and explanation for that rejection and did so without providing notice of the finding, the rational basis and the explanation to the public for review and comment. Ecology has also, in final response to comments, admitted that Washington’s SIP is inconsistent with PSD rules and has stated that Washington will revise the SIP, which further bears on Ecology’s failure to explain the basis for its disagreement, especially if Ecology’s rejection of the National Park Service’s finding is in some way based upon or influenced by its faulty SIP.

**BACT for NOx and SO2**

The Project will significantly increase NOx and SO2 pollutant emissions from the refinery. These pollutants impair the visibility in the National Parks and also contribute to many respiratory and other human health problems. Under the PSD requirements, BP and Ecology were required to analyze and require BACT emission limits for these pollutants, for all emission units affected by the Project. Ecology has failed to do so.
For NOx BACT at the new coker heaters, Ecology has rejected Selective Catalytic Reduction ("SCR") technology and emission limits achievable with that technology. SCR technology has been required and installed at numerous refinery heaters in the United States. Ecology dismissed SCR as a NOx control option due to costs, but Ecology has not justified such rejection of SCR for the new coker heaters at BP Cherry Point, given that other similar sources have incurred similar costs to install SCR to meet Clean Air Act requirements. Ecology did not determine a range of cost effectiveness values for the other SCR installations, nor did Ecology demonstrate that circumstances exist that distinguish the BP coker heaters from other refinery heaters at which SCR was installed. In addition, BP did not provide adequate documentation to support its cost effectiveness analysis for SCR. Overall, Ecology failed to conduct a proper BACT analysis and reached a proper BACT decision for NOx, and therefore its NOx BACT determination is legally and factually flawed.

For SO2 BACT, Ecology’s determination of BACT emission limits is legally and factually flawed, and as a result, the Permit fails to require SO2 BACT for the coker heaters. First, Ecology failed to impose BACT emission limits reflective of the controls that BP has actually said it will undertake as part of the Project. BP states it will install a lean oil system with a compressor and that there is a business case for doing so (that is, it is a worthwhile investment for BP as part of the Project). Yet, Ecology eliminated that control option as not cost effective. Ecology’s BACT determination was thus arbitrary and capricious and contrary to BP’s own statements. At a minimum, the Permit must include the most stringent emission limits that can be achieved using the technology BP stated will be part of the refinery configuration.

Second, Ecology has failed to evaluate and require SO2 BACT across the entirety of emission units at which SO2 emissions will increase as a result of the Project. BP and Ecology’s
Statements and documents for the Project indicate that the new coker heaters will increase coker off-gas at the refinery. This off-gas produced as part of the Project is higher in sulfur (some of which may be attributable to the higher sulfur content of the new slate of crudes expected to be processed as a result of the Project). The increased coker off-gas will be mixed with other refinery gases and used as fuel in the various heaters and other processes using fuel at the facility. BP discloses that sulfur content in the fuel will increase up to 15% across refinery operations. Ecology did not assess or impose BACT on those units that will be affected by the sulfur and that will as a result have increased sulfur emissions from the new coker heater Project. This increase in sulfur content of refinery fuel gas due to the blending of higher quantities of coker off-gas is a change in the method of operation of each of the heaters and process units that utilize refinery fuel gas that will result in an increase in SO2 emissions. The change in the sulfur content of refinery fuel gas is directly related to the physical changes at the coker units. SO2 BACT is required for all affected units that will utilize the higher sulfur refinery fuel gas.

**Greenhouse Gases**

GHG emissions will increase significantly as a result of the Project and they will increase at more points in the refinery than just the coker heaters. Ecology evaluated GHG BACT only for the coker heaters, and imposed a BACT limit reflective of the GHG emissions that would occur under planned operation of the coker heaters, assuming current feedstock. That BACT limit did not require reductions in emissions of GHGs at the refinery, from the coker heaters or anywhere else at the refinery where GHG increases would occur. Ecology failed to evaluate GHG BACT at all for the crude and vacuum unit heaters or the sulfur plant modifications, or other emission units or processes that are increasing emissions as a result of the Project and Ecology failed to analyze as BACT, additional feasible options for the control of GHGs.
6. Relief Requested

Appellant requests that the Pollution Control Hearings Board vacate and remand the Permit to Ecology, or order Ecology to rescind the Permit, and order Ecology to: 1) fully evaluate, consider and provide a rational basis for rejecting the FLM's finding that the major modification at BP Cherry Point would have an adverse impact on AQRVs and North Cascades and Olympic National Parks, and associated opportunity for the public for full review and comment; 2) require emissions limitations consistent with SCR technology as BACT for NOx emissions from the coker heaters at Cherry Point; 3) require BACT analyses and emission limitations for all emission units which will increase SO2 emissions as a result of the increased quantity of coker off-gas in the refinery fuel gas; 4) include SO2 BACT emission limits for the coker heaters in the Permit consistent with the most stringent emission limit that can be achieved with the planned plant configuration that includes a lean oil absorption system with a compressor; and 5) require a proper BACT analysis for GHG that includes all available options and impose GHG BACT for all emission units that are a part of or affected by the Project.

7. Service.

Copies of this Notice were sent to the respondents by certified mail on June 21, 2017.

Respectfully submitted this 21st day of June, 2017.

JANETTE K. BRIMMER
Earthjustice
705 Second Avenue, Suite 203
Seattle, WA  98104-1711
(206) 343-7340 | Phone
(206) 343-1526 | Fax
jbrimmer@earthjustice.org

Attorneys for Appellant National Parks Conservation Association
POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

NATIONAL PARKS CONSERVATION ASSOCIATION, Appellant,

v.

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY and BP WEST COAST PRODUCTS, LLC,
Respondents.

DECLARATION OF SERVICE

I am a citizen of the United States and a resident of the State of Washington. I am over 18 years of age and not a party to this action. My business address is 705 Second Avenue, Suite 203, Seattle, Washington.

On June 21, 2017, I served a true and correct copy of the following documents on the parties listed below:

1. Notice of Appeal
2. Attachment 1-PSD Permit

Department of Ecology
Appeals Processor
300 Desmond Drive SE
Lacey WA 98503

BP West Coast Products LLC
BP Cherry Point Refinery
4519 Grandview Road
Blaine, Washington 98230

Earthjustice
705 Second Ave., Suite 203
Seattle, WA  98104
(206) 343-7340
(206) 343-1526 [FAX]
I, Rachel Leigh, declare under penalty of perjury that the foregoing is true and correct.

Executed on this 21st day of June, 2017, at Seattle, Washington.

Rachel Leigh, Litigation Assistant