Response to Public Comments

Regulation Addition to Title 18, Chapter 50 of the Alaska Administrative Code Guidelines for Best Available Retrofit Technology under the Regional Haze Rule

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The Department proposed adding a section to the Air Quality Control regulations in 18 AAC 50 to address guidelines for Best Available Retrofit Technology (BART) under the Regional Haze Rule on April 27, 2007. The proposed BART regulations were public noticed on May 1, 2007, and the Department accepted public comments from May 1, 2007, through June 5, 2007. The Department held a public workshop on May 29, 2007, following a request from the BART Coalition. A public hearing was held on May 31, 2007; however, no comments were received at the public hearing.

This document responds to comments received during the comment period, including comments made at the public workshop held on May 29, 2007.

The Department received written comments from the following:

- A) BART Coalition, by Marilyn Crockett, May 10, 2007
- B) BART Coalition, by Matthew Cohen, May 17, 2007
- C) Tesoro Alaska Co., Kenai Refinery (Tesoro), June 4, 2007
- D) Anchorage Municipal Light & Power (ML&P), June 4, 2007
- E) Prince William Sound Regional Citizens' Advisory Council (PWSRCAC), June 4, 2007
- F) ConocoPhillips Alaska Inc., Kenai LNG Plant (Conoco), June 5, 2007
- G) National Park Service, on behalf of National Park Service, U.S. Fish and Wildlife Service, and U.S. Forest Service (collectively the Federal Land Managers (FLMs)), June 5, 2007
- H) BART Coalition, by Marilyn Crockett, June 5, 2007
- I) Alyeska Pipeline Service Company (Alyeska), June 5, 2007
- J) Agrium Kenai Nitrogen Operations (Agrium), June 5, 2007

The Department received oral comments at the Public Workshop on May 29, 2007 from:

- A) Al Trbovich, Hoefler Consulting Group
- B) Bob Price, ML&P
- C) Brad Thomas, Alyeska
- D) Chris Drechsel, Tesoro
- E) Matt Cohen, Heller Ehrman
- F) Marilyn Crockett, Alaska Oil and Gas Association
- G) Michelle Grzybowksi, Tesoro
- H) Bud Rice, National Park Service (NPS)
- I) Ann Mebane, Forest Service (Wyoming)

- J) Bruce Polkowsky, NPS (Colorado)
- K) Tim Allen, Fish and Wildlife Service (Colorado)
- L) Andrea Blakesley, NPS (Denali)
- M) Ken Richmond, GeoMatrix (Bothel, Washington)
- N) John Vimont, NPS (Colorado)
- O) John Notar, NPS (Colorado)
- P) Kristy McCullough, Agrium
- Q) Tom Gibbons, Steigers Corporation

In addition the following state staff attended the May 29, 2007, workshop:

- A) Tom Turner, Alaska Department of Environmental Conservation (DEC)
- B) John Kuterbach, DEC
- C) Tom Chapple, DEC
- D) Rebecca Smith, DEC
- E) Lindsay Wolter, Office of the Attorney General

Further clarification was requested and provided by:

- A) Steve Body, EPA Region 10
- B) Tim Allen, NPS

Structure of Response to Comments

The public comments were received in various formats, in advance of the public workshop and at the close of the comment period. Most comments were similar in nature or were centered on common issues.

The affected BART sources formed a coalition group to represent their common issues. The members of the BART Coalition are Tesoro, Alyeska, Anchorage Municipal Light and Power, Agrium, and ConocoPhillips. The BART Coalition sent comments through a letter from Matt Cohen on May 17, 2007, and later requested a public workshop to assist with clarification of regulation interpretation, prior to the close of the comment period.

Many of the proposed changes to the regulations presented in the BART Coalition's May 17, 2007, letter by Matt Cohen were clarified through discussions at the May 29, 2007, public workshop. The BART Coalition also provided comments in a second letter on June 5, 2007. Their letter stated "This letter supplements and updates comments previously submitted by the Coalition via Matt Cohen's letter to John Kuterbach of May 17, 2007, and the public workshops on April 3 and May 29, 2007." The June 5, 2007, BART Coalition letter provided a different redline version of the proposed regulations than was submitted with the May 17, 2007, letter. All of the individual letters and comments from BART Coalition members referenced support for the June 5, 2007, letter from Marilyn Crockett representing the BART coalition.

The department considered the proposed changes to the regulations presented by the BART Coalition, as well as comments received from other parties, both written

comments received as e-mails and letters and oral comments made during the public workshop. Numerous comments focused on the timetable to complete the BART determination process in order to meet federal deadlines for the State Implementation Plan (SIP) for Regional Haze.

The Response to Comments will first address the general comments on the timetable and then address other common issues and redline regulations as presented in BART Coalition's June 5, 2007, letter and attachment. Finally, other comments and additional issues from the public, not included in the BART Coalition's letters, will be addressed as detailed below.

The comments and proposed changes centered on the following issues:

- Time-table to complete BART Process and meet Federal Deadlines;
- Visibility Impacts Analysis/Modeling:
 - o Original WRAP modeling shortfalls;
 - o Ability to use 98th percentile;
 - o Issues with the modeling results summary;
- Owner requested limits;
- Definitions:
- Permit Mechanism to Implement BART; and
- Other specific comments on individual issues.

The department will make some revisions to the regulations to address comments and concerns from the BART Coalition. Other suggested changes were contrary to comments provided by the Federal Land Managers (FLMs). Since states are required under the Clean Air Act and the BART regulations to consult with the FLMs in developing Class I visibility programs, the department gave deference to the FLM recommendations unless there was a clear inconsistency with Federal and/or State rule. Responses to comments are found below.

Comment A: Related to Timetable for the BART Element of SIP Process

The majority of the comments were related to the timetable of the BART SIP process. The BART Coalition and the sources commented that the timeframes proposed were not achievable. Sources will need more time to complete every step of the process. Comments requested that the department should provide adequate time to do each step. Anchorage Municipal Light and Power (ML&P) commented that they are particularly concerned about the schedule due to the need to incorporate BART determinations into their long-term generation plan. ML&P recommended that adequate time for BART analysis preparation include department review and determination. The BART Coalition letters included specific increases in the timeline in suggested changes to the proposed regulations.

Response A: Timetable for BART Element of SIP Process

The department will revise the regulations to allow more time for certain steps in the BART analysis process, including adjusting timelines to reflect deadlines occurring after department approval of submittals. However, some of the timelines will not be extended as far as requested in comments. To grant the entire timetable as requested would delay implementation of the BART determination process in a timely manner, contrary to federal requirements.

The BART regulations are only one portion of the State Implementation Plan (SIP) for Regional Haze. Based on even the most ambitious schedule for completion of the BART process, Alaska will fail to meet the EPA Regional Haze State Implementation Plan deadline of December 17, 2007. Therefore, it is necessary for the department to demonstrate to EPA that our regulations will result in continued progress on the BART analysis and determination process so that a complete Regional Haze SIP may be submitted to EPA as expeditiously as possible. Outlining a timetable that meets federal requirements for the BART element of the SIP and accounts for the myriad logistical elements to complete the BART process from exemption modeling through BART analysis to final determination will be a challenge for all parties involved

A BART timetable process map has been included for reference. (See page 21) (Please note: the BART process begins on the effective date of the regulations. It does not include the current time that is required for state review procedures following adoption by the department. The department does recognize and appreciate current efforts of BART Coalition members to facilitate the process though advanced modeling protocol submission.)

If all the timeline adjustments to the regulations that were proposed during the comment period were incorporated, the time to complete the BART process before it could be included in the State Implementation Plan submittal (SIP) is estimated to be 24 to 30 months after the effective date of regulations. The final Regional Haze SIP submittal will require at least an additional 9 months. A timeline of this length is unacceptable and could result in the Environmental Protection Agency considering the promulgation of a Federal Implementation Plan (FIP). All BART Sources indicated the SIP was the preferred regulatory process over a FIP.

The BART process in other states was completed in similar timeframes to those proposed in the department regulations. Several other states were polled concerning their BART timeframes. New Jersey, Colorado, North Dakota, and Kansas responded, stating their rules and/or processes allow 6 months for eligible sources to submit BART analyses. The State of Alaska proposed BART regulations and associated timeframes are not unreasonable. The proposed Alaska BART regulations would allow 180-210 days for submittal of a BART analysis.

To balance the many challenges of the SIP requirements, the regulations have been revised to include deadlines for the various steps of the process. ADEC feels that it is fair and reasonable to make all parties accountable within the BART process. This

includes deadlines for delivery of information from the sources and for approvals from the department. The regulations have been revised to set a deadline for having the BART process completed within 18 months, assuming a source subject to the rule undertakes each step of the process leading to a BART determination. Options are provided for an expedited time completion for BART affected sources. It is important to recognize that in order to complete the BART timetable, the regulations required adjustment in some areas and clear deliverable times in other areas. Additionally, in 18 AAC 50.260(b), the deadline for the department to notify the sources that they are subject to BART has been reduced from the proposed 10 days to 5 days. The department has already notified all sources that are subject to BART of the status; in order to expedite the BART process timeline, the department concluded that an additional 5 days at that step in the process was not necessary.

Comments B thru J are from the BART Coalition letter, June 5, 2007. An attachment included with the letter provided a redline version of suggested changes to the BART regulations.

Comment B: Timetable for Exemption Modeling

"18 AAC 50.260(c) Subsection (c) outlines the procedure for a source to request an exemption from BART on grounds that its emissions do not cause or contribute to visibility impairment. We propose an edit to paragraph (c)(1)(C) to set the deadline for submittal of an exemption modeling report 60 days after the Department approves a modeling protocol for the visibility impact analysis. At the May 29, 2007, workshop Coalition representatives explained that the Department appropriately demands the opportunity to review and approve a modeling protocol, and that there is no way to conduct the modeling until that approval is obtained. We incorporate by reference our comments on this issue during the May 29, 2007, workshop."

Comment B: Attachment – Redline Suggested Change: Timetable for Exemption Modeling

"260(c)(1)(C) submit the visibility impact analysis report, including all supporting documentation, to the department no later than 60 days after the department approves a modeling protocol for the visibility impact analysis {effective date of regulations};"

Response B: Timetable for Exemption Modeling:

The department agrees that having reports due after approval of a modeling protocol provides a deadline and provides for the ability to complete the necessary work. It is reasonable that sources would be hesitant to invest in conducting modeling runs without an approval from the department.

A deadline will ensure that the BART process will stay on track to satisfy federal requirements. In the BART process, it is reasonable to include deadlines for both the sources and the department in order to satisfy federal time requirements as noted in comment A.

Sources may choose to avoid the expense and time to undertake exemption model in lieu of submitting a BART analysis upon the effective date of regulations. A modeling protocol will be required for the BART analysis. 18 AAC 50.260 (d) will be revised to add clarity to this process.

Response B: Regulations Revision: Timetable for Exemption Modeling

The regulations will be revised at 18 AAC 50.260 (c) to reflect a finite schedule for exemption modeling.

 $18 \, AAC \, 50.260(c)(1)(A)$ will shorten the notification requirement from sources who are/will perform exemption for modeling to 10 days. The majority of the sources have already started work on exemptions modeling. A simple notification will not require 30 days.

 $18 \, AAC \, 50.260(c)(1)(B)$ will be revised to reflect a deadline of 30 days for submitting modeling protocols, and 260(c)(2) will be revised to provide for a department approval in 30 days, following the submittal.

The regulations at 260(c)(3)(B) will be revised to reflect that the visibility impact analysis report will be due 60 days after the department approves a modeling protocol submission. In addition, the regulations will allow for a 90 day submission if the modeling protocol is approved prior to the effective date of the regulations. This change reflects the efforts that are currently in progress from Coalition members on modeling protocol and comments requesting more time to run the modeling program.

In addition, the regulations section 260(d) will add language to clarify that sources can model for BART analysis if a source does not choose to undertake exemption modeling.

Comment C: Owner Requested Limits (ORL)

"We propose a new paragraph (c)(3) to enable a source seeking to avoid the BART requirement to request an owner-requested limit or limits to ensure that its emissions do not cause or contribute to visibility impairment in a Class I area. At the May 29, 2007, workshop John Kuterbach commented that an owner-requested limit under 18 AAC 50.225 could be used to achieve this goal. Paragraph (c) (3) implements that suggestion."

Comment C: Attachment – Redline Suggested Change: Owner Requested Limits (ORL)

"260(c)(3) request for exemption may include an application under 18 AAC 50.225 for owner-requested limits that reduce the visibility impact of a BART eligible source to levels at which the BART-eligible source is not reasonably anticipated to cause or contribute to any visibility impairment in a Class I area identified in the notice provided under (b) of this section. The department's decision to approve an exemption may include a letter approving the owner-requested limit, per 18 AAC 50.225(f)."

Response C: Owner Requested Limits (ORL)

The department will add language to the proposed regulations to clarify the use of 18 AAC 50.225 to allow exemption to BART eligible sources.

Owner requested limits are part of department regulations in 18 AAC 50.225. These regulation options are available to any source that makes the choice to limit emissions. In addition to the BART Coalition letter, comments received during the public workshop indicated that the application of 18 AAC 50.225 to the BART process were not clear to all affected parties.

A source may take an owner requested limit to avoid BART analysis and then be exempt from the BART determination process. Additional regulations language has been included to ensure that the source's obligation to perform a BART analysis will still apply should it choose to revise the ORL at some future date.

The proposed regulations will also provide a deadline of 30 days for sources to request an ORL. (Please reference Comment A). The department approval within 30 days for an ORL exists in the current regulations under 18 AAC 50.225.

Response C: Regulations Revision: Owner Requested Limits (ORL)

Section 260(c)(5) is revised to clarify the applicability of 18 AAC 50.225 to BART sources. The ORL submittal is required in 30 days. Please note: the revision also will allow an ORL submittal within 30 days after the effective date of regulations for those who choose to not undertake exemption modeling or 30 days after receiving DEC's determination that the results of the exemption modeling do not qualify for an exemption of the BART Determination.

Section 260(c)(6) shows the BART obligation should the ORL be rescinded or removed.

Section 260(c)(8) adds language to allow exemption for either a visibility impact analysis or owner requested limit.

Comment D: Timetable for BART Analysis

"18 AAC 50.260(d) Subsection (d) sets a deadline for sources subject to BART to submit a BART control technology analysis. The Coalition's edits address three shortcomings in the proposed rule. First, subsection (d) of the proposed rule forces a source that applies for an exemption to develop a BART control technology analysis while the exemption application is pending. This schedule is inefficient and wasteful because the BART control technology analysis will not be needed if the Department grants the exemption application. Attachment A, subsection (d), solves this problem by starting the clock for submittal of a BART control technology report upon receipt of the Department's decision denying an exemption. It provides no deferral for a source that does not apply for an exemption.

A second concern with proposed 18 AAC 50.260(d) is that it does not provide time for the Department to review and approve a visibility modeling protocol for a source analyzing alternative BART control strategies. A BART control technology analysis requires its own modeling exercise, different from the exemption modeling performed by WRAP or the source. Per EPA's BART Guideline, "Step 5" in a BART control technology analysis consists of modeling "to determine the visibility improvement expected at a Class I area from the potential BART control technology applied to the source." The Guideline directs the State to develop a modeling protocol for this analysis, but acknowledges that "States have the authority to require source owners to assume part of the analytical burden . . . " Given that the control technology modeling protocol includes detailed source-specific information, including information about what control scenarios to model, the Coalition recommends that the Department call on the sources to model visibility improvements as part of their BART control technology submittals, using a protocol approved by the Department. Our proposed edits to subsection (d) add a requirement that each source subject to BART will submit a modeling protocol, and it directs the sources to submit completed control technology analyses within 180 days after the Department approves the modeling protocol.

Finally, as we discussed at the May 29, 2007, workshop, 180 days is very little time to complete a BART control technology analysis. The contents of that analysis, per the EPA BART Guideline, include several challenging tasks. First, the source must conduct an engineering analysis to identify technically feasible control options for NOx, SO2 and PM. Second, the source must prepare cost estimates for each of those control options. The estimates typically will require third party vendor support, because most control devices must be engineered to fit the configuration of the source, and an owner/operator cannot rely on back-of-the-envelope cost estimates to choose between controls that may be imposed as BART. Third, the source must model the visibility improvement attributable to different control strategies. For a source with many BARTeligible emission units, some internal review and consultation with the Department will be required just to identify the set of control options to model. Finally, the source must obtain management approval for submittal of a report to the Department that identifies a proposed set of controls as BART. Where BART controls involve significant capital investments, the process of obtaining corporate approval for a particular set of investments requires management briefing and approval.

For all of these reasons, the Coalition believes that 180 days from approval of a modeling protocol is a minimal time frame to develop a BART control technology analysis. We are including in our proposed edits a new subsection (p) to 18 AAC 50.260, authorizing the Department to extend submittal deadlines for good cause demonstrated."

Comment D: Attachment – Redline Suggested Change: Timetable for BART Analysis

"260(d) No later than 120-60 days after the later of {effective date of regulations} or the department's denial of a request for exemption under (c) of this section, the owner or operator of each source subject to BART shall submit to the department a visibility impact modeling protocol, consistent with (g) of this section, to analyze the visibility

improvement expected at a Class I area from one or more potential BART control technologies. No later than 180 days after approval of a modeling protocol the owner or operator shall submit an analysis of control options consistent with Section IV of the BART guideline."

Response D: Timetable for BART Analysis

There are several timetable issues related to the BART analysis. Any delays in the early part of the process can be compounded by subsequent timetable issues. As noted in comment A, the department did review other states' BART analysis time, which ranged from 90 to 180 days. The proposed regulations allow 180 days for BART analysis.

If a source performs exemption modeling but the exemption is denied, then it is reasonable that the source has the advantage of base model runs with limited modification for the BART analysis. However, for the sources that have the advantage of 4 month period for exemption modeling, the BART analysis and the modeling for such will need to be completed with the 180 days upon denial of the BART exemption.

It is reasonable that a source that does not extend the timetable though exemption modeling and proceeds directly to BART analysis should be allowed the opportunity to provide a modeling protocol and have time for the department review. The regulations will be revised to provide those sources the time to model for BART Analysis.

The April 27, 2007 proposed regulations did not provide a deadline for the department to approve the BART analysis. The regulations will be revised to require the department to complete a draft BART determination for public notice within 120 days.

Response D: Regulation Revision: Timetable for BART Analysis *The April 27, 2007, regulations have been revised as follows:*

Section (k) has been revised to include language for the department to complete the BART determination in 120 days.

Section (e) has been revised to read: (e) For purposes of analyzing the visibility impact from potential BART control technologies, the owner or operator of each source subject to BART shall submit to the department an analysis of control options consistent with Section IV of the BART guideline;

- (1) no later than 210 days after the latter of {effective date of the regulations} or notification under (b) of this section for an owner or operator who did not submit an exemption modeling protocol under (c)(1) of this section; or
- (2) no later than 180 days after the denial of an exemption request *submitted under (c) of this section.*

Comment E: Identical Modeling Approach

"18 AAC 50.260(g) Subsection (g) describes the mandatory elements of a visibility impact analysis. This subsection applies to both exemption modeling and control technology improvement modeling. For that reason, the Coalition proposes to add a few words to paragraph (g)(1) to clarify that the requirement to "use an identical modeling approach for comparing the pre-control and post-control impacts" applies only to control technology improvement modeling, not to exemption modeling."

Comment E: Attachment – Redline Suggested Change: Identical Modeling Approach

"260(g)(1) use an identical modeling approach for comparing the pre-control and post-control impacts of potential BART control technologies;"

Response E: Identical Modeling Approach

The department agrees with the proposed revision. Clarification for exemption modeling and BART analysis modeling is required.

Response E: Regulation Revision: Identical Modeling Approach

Section 260(h)(1) will be revised with the suggested regulation language.

Comment F: Use of the Word "Maximum"

"Paragraph (2) provides guidance on modeling the visibility impacts of a source, and of proposed controls applied to a source. The Coalition strongly urges the Department to delete the word "maximum" from this paragraph. The proposal to use the maximum daily visibility impact, as opposed to the 98th percentile impact, as the measure of a source's impacts on visibility conflicts with the EPA BART Guideline, and would grossly exaggerate a source's contribution to visibility impairment. The Coalition incorporates by reference the comments we provided on this issue in our May 17, 2007 letter and at the May 29, 2007 workshop."

Comment F: Attachment – Redline Suggested Change: Use of the Word "Maximum"

"260(g)(2) determine the maximum change in visibility impacts (in daily deciviews) compared to the annual average default natural visibility condition as listed in *Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule*, EPA-454/B-03-005, September 2003, adopted by reference, at each Class I area identified in the notice under (b) of this section."

Response F: Use of the Word "Maximum"

The use of the word "maximum" in 18 AAC 50.260(g)(2), which is now 18 AAC 50.260(h)(2), refers to the maximum change in visibility between pre- and post-BART control technologies, not to the cause and contribute threshold evaluated as part of the subject to BART determinations. In the context, "maximum" is a relative measure of the effectiveness of the controls, not of the effect of the sources on the Class I areas.

Due to the need for the regulations to indicate what degree of change between control options must be considered as part of the BART analysis, the word maximum will stay in the regulations. The department recognizes that the word "maximum" may create some confusing or perceived outcome. The revised regulations will add clarification language in section (h)(2) and a definition for "maximum change" as it is referenced in the BART regulations.

Response F: Regulations Revision: Use of the Word "Maximum"

To assist with clarification, section 260(h)(2) has been revised and a definition of "maximum change" will be added to 18 AAC 50.990 to clarify the regulations.

Comment G: Reference to the WRAP RMC BART Modeling For Alaska, Draft #7

"Paragraph (3) specifies guidelines for acceptable modeling protocols. In paragraph (3)(A) the Coalition does not object to adoption of the CALMET/CALPUFF Protocol for BART Exemption Screening Analysis for Class I Areas in the Western United States. We propose for three reasons to strike the reference to the WRAP RMC BART Modeling For Alaska, Draft #7. First, the WRAP document is not modeling guidance, nor does it contain any modeling guidance. It simply reports the results of an exemption modeling exercise performed by a WRAP contractor. Second, a source conducting its own modeling would have no occasion to apply the modeling guidelines used by WRAP. If those guidelines produced an acceptable result the source would not be proposing to conduct its own exemption modeling. Third, the WRAP modeling exercise contains many prejudicial errors, outlined in detail in the Coalition's May 17, 2007 letter and Attachment D to that letter. The Department should not incorporate into its rules a modeling exercise that contains as many serious errors as WRAP Draft #7, especially when the only purpose for which the Department employed the WRAP study was to identify sources potentially subject to BART."

Comment G: Attachment – Redline Suggested Change: Reference to the WRAP RMC BART Modeling For Alaska, Draft #7

"260(g)(3) be conducted in a manner consistent with either:

(A) the August 15, 2006 CALMET/CALPUFF Protocol for BART Exemption Screening Analysis for Class I Areas in the Western United States, adopted by reference, as amended by the Summary of WRAP RMC BART Modeling for Alaska, Draft #7, April 6, 2007, adopted by reference; or"

Response G: Reference to the WRAP RMC BART Modeling For Alaska, Draft #7

The department will keep the reference in the regulations. First, the WRAP "document" was the approved reference at the time of the modeling. The WRAP modeling protocol was approved by EPA and the Federal Land Managers (FLMs) and was conducted with the data available at the time of the modeling run. The changes made to the WRAP protocol (as approved for all WRAP states) were necessary to account for only having only one year of meteorological data available for Alaska. WRAP reran the modeling to account for some of the errors noted early in the public process, and the Summary, Draft #7 document reflects those corrections. During the

public workshop, the FLMs confirmed and clarified this process in response to comments and questions.

Second, regarding the statement that no source using Draft 7, the BART Coalition may be unaware Alyeska has had a modeling protocol discussion with the department that indicated that they may be able to exempt out of BART requirements by using the Draft 7 protocols with updated emission unit data. It is important that the department and the regulations allow for as many options available to all sources. The Summary of WRAP RMC BART Modeling for Alaska, Draft #7, April 6, 2007, must be incorporated by reference along with the CALMET/CALPUFF Protocol for BART Exemption Screening Analysis for Class I Areas in the Western United States, August 15, 2006, because any visibility impact analysis conducted using the WRAP protocol must use exactly the modifications and settings used by WRAP as detailed in the summary in order to be approved by the department and the FLMs, with the possible exception of using corrected emission rates. This is the case with Alyeska.

With regard to the errors in the Draft 7 modeling, the department recognizes that new data may be available and that errors in the original modeling protocol may need to be corrected. The April 27, 2007, proposed regulations did provide the ability to correct errors and provide new data (such as MM5) though submittal of a modeling protocol under (h)(3)(B).

The revised regulations for modeling demonstration are now found at (h)(3)(B). The modeling protocol is the appropriate mechanism to correct errors in Draft 7. The department is hesitant to be overly prescriptive, but it needs to allow for a modeling protocol that is approval by the federal land managers and EPA while also allowing for correction of errors and new data sets.

The EPA BART Guidelines allow for states to consider all BART-eligible sources as subject to BART without conducting impact modeling. DEC affirms that the WRAP modeling was conducted in an attempt to show that sources might not be subject to BART. However, the results of the modeling (as approved and run) indicated that all the sources were determined by the modeling to be causing or contributing to impairment of visibility.

Response G: Regulations Revision: Reference to the WRAP RMC BART Modeling For Alaska, Draft #7

The department will not remove the adoption by reference of the summary document from the regulations.

Comment H: Monitoring

"18 AAC 50.260(n) Subsection (n) incorporates requirements from 40 CFR 51.308(e)(1)(v) to ensure that control equipment installed to comply with BART is maintained and operated. The Coalition urged the Department to strike paragraph (2): "conduct monitoring, recordkeeping and reporting that complies with 18 AAC 50.220 and that demonstrates compliance or noncompliance with the BART requirements under

all operational conditions." First, the requirement that monitoring demonstrate compliance "under all operational conditions" has no basis in 40 CFR 51.308 or the BART Guideline. The Guideline rejects the idea that the federal definition of emission standard or the BART rules "necessarily require the use of continuous emissions monitoring . . ." Second, subsection (i) of the proposed rule addresses monitoring requirements in a manner consistent with the BART Guideline. Subsection (i) fully covers the monitoring requirements of the BART Guideline and paragraph (n)(i) says everything that the BART Guideline or 40 CFR 51.308 require about operation and maintenance of control equipment."

Comment H: Attachment – Redline Suggested Change: Monitoring

- "260(n) The owner or operator of a source required to install control equipment to comply with the BART determination shall:
- (1) maintain the control equipment and establish procedures to ensure such equipment is properly operated and maintained; and
- (2) conduct monitoring, recordkeeping, and reporting that complies with 18 AAC 50.220 and that demonstrates compliance or noncompliance with the BART requirements under all operational conditions."

Response H: Monitoring

The department will revise the regulation. Per 40 CFR 51.308(e), the department must submit an implementation plan that contains emission limits representing BART for each BART-eligible source that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I areas. Emission limits are meaningless if there are no methods for verifying that the source can comply with those limits. Incorporating a monitoring, recordkeeping, and reporting (MR&R) requirement is therefore appropriate and consistent with the department's standard practice of establishing MR&R requirements to verify emission limit compliance in all other permit mechanisms.

Demonstrating compliance under all operating conditions does not necessarily require the use of continuous emissions monitoring. In many situations, sources can demonstrate compliance under a worst-case condition to show that they can also comply when operating under all other conditions. Surrogate measures can also be used in some cases to demonstrate compliance with an emission limit. For example, the maximum fuel rate and maximum fuel sulfur content could be used to demonstrate compliance with a sulfur dioxide (SO_2) emission limit.

Response H: Regulation Revision: Monitoring

In review of these comments, the department noted that the final BART determination includes a MR&R finding. Therefore, there was no need to establish the MR&R parameters in 18 AAC 50.260(o)(2) — a simple reference to the final determination is all that is needed. (Please note that this section is now found at (o) in the proposed regulations). The department has revised subparagraph (2) to read: "conduct the monitoring, recordkeeping, and reporting methods contained in the final BART determination."

Comment I: Timetable: Extension

"For all of these reasons, the Coalition believes that 180 days from approval of a modeling protocol is a minimal time frame to develop a BART control technology analysis. We are including in our proposed edits a new subsection (p) to 18 AAC 50.260, authorizing the Department to extend submittal deadlines for good cause demonstrated."

Comment I: Attachment – Redline Suggested Change: Extension

"260(p) The department may extend the deadline for submittal of any filing required by this section upon a satisfactory showing that an extension is justified."

Response I: Timetable: Extension

The Department understands that due to the perceived limited time to go through the BART process that this change may be desirable. The addition of another step for approval or disapproval only opens the door for additional work effort on all parties directed towards extension approvals rather than accomplishment of the task. The revised timetable, including department delivery times, provides a reasonable assurance of communication with the BART sources and task completion. If through this process it is apparent, that despite the best efforts more time is required, the department can consider extension on case by case basis. BART determinations must be included as Title V permit terms and conditions. Therefore, the adoption by reference of 40 CFR Part 71 in 18 AAC 50.040(j) should cover any necessary extension of time limits under the permit application requirements found in 40 CFR 71.5(a)(2) and 40 CFR 71.5(b).

Response I: Regulation Revision: Timetable: Extension

The Department will not revise the regulations by adding 260(p). Please see the timetable discussions in response A.

Comment J: Definitions

"18 AAC 50.990 The Coalition proposes edits to two definitions presently contained in 18 AAC 50.990 to reconcile differences between the definitions in that section and in 40 CFR 51.301. We propose to update the state definition of "impairment of visibility" to match the current EPA definition for all purposes for which the term is used in 18 AAC ch. 50. We propose an edit to the existing state definition of "reconstruct"/"reconstruction" to clarify that the definition used in the regional haze program differs slightly from the definitions used in the NSPS and MACT programs."

Comment J: Attachment – Redline Suggested Change: Definitions

- "18 AAC 50.990(47) is amended to read as follows:
- (47) "impairment of visibility" or visibility impairment means any humanly perceptible change in visibility such as (light extinction, visual range, contrast or coloration), from that which would have existed under natural conditions."
 - "18 AAC 50.990(88) is amended to read as follows:
- (88) "reconstruct" and "reconstruction" have the meaning given "reconstruction" in 440 C.F.R. 63.2, adopted by reference in 18 AAC 50.040, except that for purposes of 18 AAC 50.260 "reconstruction" has the meaning given in 40 C.F.R. 51.301."

Response J: Definitions

The department agrees. Definitions will need to be consistent with the EPA and clarify terms as they relate to the BART regulations.

Response J: Regulation Revision: Definitions

Definitions will be revised to reflect a more complete definition of impairment of visibility and to include a specific clarification of the definition of reconstruction for purposes of 18 AAC 50.260.

Comments from BART Coalition and Public workshop not addressed above:

Comment K: Comments related to Permit Mechanism to Implement BART

The BART Coalition proposed in the May 17, 2007, Matt Cohen letter that the BART determinations should be enforced through a minor permit, not the sources' operating, or Title V, permits. During the Public Workshop, questions were asked to clarify the permit mechanism for BART.

Response K: Comments related to Permit Mechanism to Implement BART

The BART determinations are applicable requirements of the Clean Air Act and therefore must be included as Title V permit conditions. The BART determinations must be incorporated into a source's Title V permit. Therefore, the department will not to use minor permits to implement BART. Use of minor permits is not laid out in federal BART rules or guidance.

Comment L: Use of 98th Percentile in Modeling

The BART Coalition and the sources commented during the public workshop and referenced in the May 17, 2007, Matt Cohen letter that the regulations should follow the BART Guidelines exactly, including using the 98th percentile for visibility impact analysis, including the exemption modeling.

Response L: Use of 98th Percentile in Modeling

This issue was clarified though questions during the public workshop. The April 27, 2007, proposed regulations allow for the use of the 98^{th} percentile in the submittal of modeling protocol in 260(g)(3)(B). (Please note the adopted regulation section is (h)(3)(B) with no language change.)

The meteorological data that was available at the time for the WRAP modeling was insufficient to allow the use of the 98th percentile value. This was noted by the federal land managers (FLMs)during the public workshop. The regulations provide for alternative modeling protocols to be submitted and approved. The alternate modeling protocols would be allowed to use the 98th percentile value if there is sufficient meteorological data that has been approved for use available at the time the protocol is submitted. The regulations otherwise were written to follow the federal guidelines.

In consultation with the federal land managers (FLMs) and the EPA, the decision has been made that sources submitting alternate modeling protocols under 18 AAC 50.260(h)(3) may be allowed to use the 98th percentile value if the FLMs, EPA, and department have approved the results of the MM5 data set and any alternate modeling protocols.

Comments from other interested parties:

Comment M: Federal Land Managers: Timetable

The National Park Service, U.S. Fish and Wildlife Service, and the U.S. Forest Service wrote a combined letter supporting the approach DEC is taking with BART regulations. They supported the department's April 27, 2007, proposed regulations. However, they also provided some suggested language changes to the regulations to clarify timetable issues:

260(c)(1)(B): Add "upon ADEC approval of modeling protocols" after "...visibility impact analysis" and before "in accordance with (g)(3)..."

260(d): Add "or 120 days after ADEC makes a final determination that BART is required" after "...effective date of the regulations" and before "the owner or operator..."

Response M: Federal Land Managers: Timetable

The department acknowledges the support of the federal land managers in the proposed approach to BART regulations. The department has revised the regulations to include language similar to the suggested changes in order to clarify timing issues as noted in the department's responses to comments A and B.

Comment N: Comments to include other pollutants

The department requested comments on whether Volatile Organic Compounds (VOCs) and ammonia (NH₃₎ should be included into the BART regulations. They were not proposed in the April 27, 2007, regulations. Tesoro, Agrium, and Alyeska submitted comments that VOCs and ammonia should not be included as pollutants of concern for purposes of BART. All sources commented that they are taking steps to control or capture the VOC and ammonia emissions. Sources reference modeling runs (provided by the source or sensitivity analysis run by WRAP) that show the VOC and ammonia emissions also have little impact on regional haze in Class 1 areas.

Response N: Comments related to other pollutants

The department will not be including VOCs and NH_3 as pollutants of concern for purposes of BART as proposed in the April 27, 2007, regulations.

WRAP conducted ammonia sensitivity tests with concentrations of NH_3 from 0.1 ppb to 10 ppb. The WRAP run included updated data from Agrium. The sensitivity test showed that there was not a significant difference in the effect on visibility impairment among the modeled levels of NH_3 , which indicates that the NH_3 being released by the

Agrium plant also is not likely to have a significant effect on visibility impairment at the Class I areas. Therefore, NH_3 will not be included as a pollutant of concern for purposes of BART.

It is not possible to account for VOCs in CALPUFF modeling, and Alyeska provided data to show that they are currently controlling (or plan to control) their VOC emissions to a level considerably lower than their permitted potential to emit (PTE). Based on those two factors, DEC has decided to not include VOCs as a pollutant of concern for purposes of BART.

Comment O: ConocoPhillips BART Determinations

ConocoPhillips submitted comments stating that they should not be included in this regulation process because the determination that the Kenai LNG Plant is a BART-eligible source is unwarranted. They requested that DEC remove the Kenai LNG Plant from the list of BART-eligible sources.

Response O: ConocoPhillips BART Determinations

This comment does not address the proposed regulations directly. There is not a list of BART-eligible sources in the regulations at this time, as BART-eligible sources are being determined based on the EPA Guidelines and then notified of their status as set out in the regulations. The department will implement the BART eligibility as outline in the federal guideline.

Comment P: BART-eligible Units

Alyeska commented that backup power generation and firewater pumping engines should not be included as BART-eligible units.

Response P: BART-eligible Units

The units can be removed if an analysis demonstrates that the cost to control unreasonable. Department staff consulted with the EPA on the issue of inclusion of emergency units in BART-eligible emission units lists. The department and the EPA have concurred that emergency units should be included as emission units for which BART control technologies are analyzed, unless their use is specifically limited in the Title V permit for emergency use only. EPA did state that given the size of the units, it's likely that the BART control technology analysis would show that the cost benefit of controlling them is not reasonable, so they could be excluded from needing BART controls based on that factor. However, the analysis must be completed for those units so the cost benefit of controls can be evaluated as part of the BART determination process.

Comment Q: BART for State Parks and Tanker Units

The Prince William Sound RCAC support the department's proposed BART regulations. They commented that a number of Alaska State Parks are within 17 miles of VMT and that all of the Prince William Sound consists of National Park quality visual aesthetics that would be harmed by visible emissions. Additionally they recommend that emissions from tankers and other vessels be included in rulemaking while they're docked at Valdez Marine Terminal or any other terminal in Alaska. They recommend the tanker

control because visibility impacts from vessels at VMT have been a source of citizen concern.

Response Q: BART for State Parks and Tanker Units

These regulations cannot address air quality impacts from BART sources to State Parks. Alaska State Parks are not part of the Federal Class I areas that are of concern in the BART Rule. Additionally, tankers do not meet the "in existence" timeframe requirement of the BART Rule to be BART-eligible sources, so they cannot be included as a part of the emission units subject to the BART regulations.

Overall Summary of Comments:

<u>BART Coalition Marilyn Crockett letter</u>, 10 May 2007: This letter commented on sections of proposed regulations that the BART Coalition wanted to discuss at third workshop. The letter set a goal of being able to work though 260(g), 260(c), address inability to take owner-requested limits, 260(i)-(k), 260(d) and (g), and conflicting definitions in 990.

<u>BART Coalition Matt Cohen letter, 17 May 2007</u>: This letter commented on issues of concern with the proposed regulations and suggested significant changes to the regulations.

BART Public Workshop transcript, 29 May 2007: See additional documents.

<u>Tesoro Letter</u>, 4 June 2007: This letter strongly supported the June 5 BART Coalition letter. The letter also provided additional comments on VOCs and requested that they not to be included in the BART regulations.

Anchorage ML&P letter, 4 Jun 2007: This letter fully supported the 17 May/5 June Coalition letters. They continue to believe implementation schedule is not practical and should be revised as discussed in the BART Coalition letter. They are very sensitive to the timetable issues because of need to incorporate BART determination into their long-term generation plan. They noted that the impact of the BART determination must be fully evaluated before ML&P can submit their BART analysis. They also requested that ADEC provide adequate time for BART analysis and for ADEC review.

Prince William Sound RCAC letter, 4 June 2007: This letter noted that a number of Alaska State Parks are within 17 miles of VMT and that all of PWS consists of National Park quality visual aesthetics that would be harmed by visible emissions. They support ADEC's proposed regulations. Additionally, they recommended that emissions from tankers and other vessels be included in rulemaking while they are docked at the Valdez Marine Terminal (VMT) or any other terminal in Alaska. They recommended this because the visibility impacts from vessels at the VMT have been a source of citizen concern.

ConocoPhillips letter, 5 June 2007: This letter supported the 5 June Coalition letter. As stated in an attached letter and EPA info to Tom Turner and Nancy Helm, ADEC's determination that the LNG plant is a BART-eligible source is not warranted. The letter requested that ADEC remove Kenai LNG plant from the list of BART-eligible sources. National Park Service/FLM letter, 5 June 2007: This letter supported adoption of the federal language and guidance in drafting state BART regulations. Given the Regional Haze Rule and the impending SIP, they think ADEC is wise to embark on BART rule in a timely fashion. They supported use of WRAP modeling as first analysis step. They also recognized that the proposed regulations provide ample opportunity for sources to conduct additional analyses to determine if BART analysis is required. They looked forward to working with ADEC and the sources to assure that appropriate procedures are

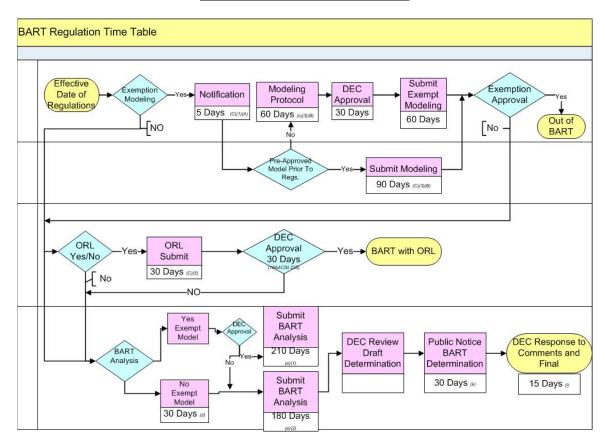
followed. Their letter also included specific language change suggestions to clarify schedule due dates. They hoped the proposed changes would avoid confusion on the part of sources and assure the regulation's success. Suggested changes—260(c)(1)(B) add "upon ADEC approval of modeling protocols" 260(d) add "or 120 days after ADEC makes a final determination that BART is required"

BART Coalition Marilyn Crockett letter, 5 June 2007: This letter was written on behalf of the BART Coalition and supplemented and updated comments previously submitted via the 17 May letter and via the workshops on 3 April and 29 May. They still believe that the proposed revisions to the regulations presented with the 17 May letter comprise a fair and efficient program to implement BART, and they hope that DEC will follow it. Their current comments offered more limited mark-up of proposed regulations to assist DEC with solving the most serious problems of 27 April proposed regulations if DEC concluded it was not feasible to follow their 17 May proposal. They continued to support the 17 May version, but the current proposal was offered as a compromise. They also provided further descriptions of their proposed changes to each section.

Alyeska Pipeline letter, 5 June 2007: In their letter, Alyseska noted that they fully expected to demonstrate using the WRAP protocol with refined inputs that VMT does not cause or contribute to visibility impacts at Denali, and they are currently working with DEC to carry this out. When this work is completed, they expect that VMT will be exempted from the BART regulations. In the meantime, they supported the 5 June BART Coalition letter and hope DEC carefully considers, acts on, and thoughtfully responds to each comment. They particularly supported the BART Coalition's urging to use 98th percentile visibility impact rather than maximum. They noted that this is the approach in the EPA guidelines and is a sensible approach in that it keeps the facility from being regulated on the basis of extreme conditions. If DEC adopts 98th percentile, the Valdez Marine Terminal (VMT) may assess the impacts at Denali using that approach. The VMT believes DEC properly handled the VOCs in regulations by excluding them. They attached modeling output to their letter that shows that VOC impacts at Denali barely registered. They also noted that VOC emissions will be much lower starting in 2008. Alyeska also believes that diesel engines used for backup power generation and firewater pumping should be excluded from being BART units. They also attached the assessment of potential impacts report to their letter.

Agrium letter, 5 June 2007: This letter supported the 5 June BART Coalition letter and suggested regulation language revisions and urged ADEC to take them into thoughtful consideration. In addition, they recommended that ADEC not include ammonia in the BART analysis, due to the facts that the results of sensitivity analysis showed that at various background levels the affect was still the same, that Agrium has undertaken numerous projects to reduce or capture ammonia, and that due to most impairment in Alaska being due to forest fires, inclusion of ammonia would be an undue financial burden on Agrium resulting in no visibility improvement. Also, their letter implored DEC to set aside concerns about implementation deadlines to concentrate on a full and objective review of the final public comments.

BART Timetable Process Map



The May 17, 2007, letter offered the following significant changes to the proposed rule:

BART COALITION 4/27/07 DRAFT OF BART REGULATION:

18 AAC 50 is amended by adding a new section to read:

18 AAC 50.260 (a) Guidelines for best available retrofit technology (BART) determinations under the regional haze rule. 40 C. F. R., Part 51, Appendix Y, as published in Federal Register of July 6, 2005, is adopted by reference into this chapter.

- (b) Within 5 days of the effective date of this regulation, the department shall, by certified mail, notify the owner/operator of each BART-eligible source of the emission units that comprise the BART-eligible source. In making BART eligibility determinations the department shall apply the criteria set forth in 40 C.F.R., Part 51, Appendix Y, Section II ("How To Identify BART-Eligible Sources").
- (c) Within 35 days of receipt of the department's final BART eligibility determination the owner/operator of a BART-eligible source may submit one of the following:
 - (1) An application for a minor permit under 18 AAC 50.508(5), establishing owner-requested limits on emissions by the BART-eligible source of PM_{10} , NOx and SO_2 , set equal to one of the following thresholds:
 - (A) 250 tons per year of each pollutant;
 - (B) 500 tons per year of each pollutant for a BART-eligible source located at least 50 km from both the Denali and Tuxedni Class I areas;
 - (C) 1000 tons per year of each pollutant for a BART-eligible source located at least 100 km from both the Denali and Tuxedni Class I areas; ¹
 - (2) A modeling protocol for a visibility impact analysis, designed in accordance with (d) of this section, to evaluate whether the BART-eligible source causes or

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Attachment B

¹ See BART Guidelines, 70 Fed. Reg. 39119 (July 6, 2005).

contributes to visibility impairment in a Class 1 Area identified in 18 AAC 50.015(c)(2) located within 300 kilometers of the source.

- (d) A visibility impact analysis must:
- (1) determine the 98th percentile change in visibility impacts (in daily deciviews) compared to the annual average default natural visibility condition as listed in *Guidance* for Estimating Natural Visibility Conditions Under the Regional Haze Rule, EPA-454/B-03-005, September 2003, adopted by reference, at each Class 1 area located within 300 kilometers of the BART-eligible source;
 - (2) be conducted in a manner consistent with either:
 - (A) the August 15, 2006 CALMET/CALPUFF Protocol for BART

 Exemption Screening Analysis for Class I Areas in the Western United States,
 adopted by reference; or
 - (B) a modified protocol approved by the department, after a 15-day review by the U.S. Environmental Protection Agency and the applicable Federal Land Manager(s).
- (e) The department shall designate as a source subject to BART each BART-eligible source identified by the department under (b) of this section, unless the owner or operator either applies for an owner-requested limit as provided (c)(1) of this section, or submits one of the following within 60 days after approval by the department of a modeling protocol under (c)(2) of this section:
 - (1) A visibility impact analysis, conducted in accordance with the approved modeling protocol, that demonstrates that the BART-eligible source does not cause or

contribute to visibility impairment in a Class 1 Area identified in 18 AAC 50.015(c)(2) and located within 300 kilometers of the source;²

- (2) An application for a minor permit under 18 AAC 50.508(5), supported by a visibility impact analysis conducted in accordance with the approved modeling protocol, proposing owner-requested limits at which emissions from the BART-eligible source will not cause or contribute to visibility impairment in a Class 1 Area identified in 18 AAC 50.015(c)(2) and located within 300 kilometers of the source;³
- (f) The department will notify an owner or operator, the Environmental Protection Agency, and the affected federal land manager of action taken under (e) of this subsection.
- (g) No later than 180 days after receipt of a determination under (e) of this section that a BART-eligible source is subject to BART the owner or operator shall submit to the department an analysis of control options consistent with 40 C.F.R. Part 51, Appendix Y, Section IV ("The BART Determination: Analysis of BART Options").
 - (h) The pollutants of concern for purposes of BART are SO2, NOx, and PM10.
- (i) If an owner or operator elects to apply or has already applied the most stringent controls available, consistent with the analysis conducted under (g) of this section, the owner or operator need not conduct an air quality modeling analysis for the purposes of determining the visibility impacts of the stationary source.
- (j) The department shall request from the owner or operator any additional information necessary to complete review of the analysis of control options for a source subject to BART. The department shall establish a reasonable deadline for submitting the information after consulting

² See BART Guidelines, 70 Fed. Reg. 39161 (July 6, 2005).

³ See EPA, Additional Regional Haze Questions (September 27, 2006) at 21: "[A] State may allow a BASRT-eligible source to reduce its emissions such that individual source dispersion modeling shows the source's impact falls below the contribution threshold established by the State."

the owner or operator. The owner or operator shall provide such information no later than the deadline established by the department.

- (k) The department shall review each analysis of control options and issue for public comment a proposed minor permit, incorporating a proposed BART determination for each BART-eligible emission unit at each source subject to BART. The minor permit will include:
 - (1) the pollutant-specific emission limits for each BART-eligible emission unit at each source subject to BART, and
 - (2) the monitoring, record-keeping, and reporting needed to demonstrate compliance with the emission limits;
 - (3) a compliance schedule providing that the owner or operator of the source shall comply with the requirements described in (1) and (2) above as expeditiously as practicable, but no later than 5 years after the date of EPA approval of the state implementation plan for regional haze;
- (I) The department will follow the procedures in 18 AAC 50.542(d) to solicit public comment on the proposed permit.
- (m) After the public notice period and consideration of comments received, the department will issue a final permit that includes emission limits and monitoring, record keeping, and reporting requirements to ensure continuous compliance with the BART limit for each BARTeligible source;
- (n) An informal review of the minor permit may be requested as prescribed in 18 AAC 15.185. An adjudicatory hearing of the minor permit may be requested as prescribed in 18 AAC 15.195 – 18 AAC 15.340.
- (o) The owner or operator of a stationary source required to install control equipment in order to comply with BART emission limits is required to maintain the control equipment and to establish procedures to ensure such equipment is properly operated and maintained.

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- (p) The department may extend the deadline for submittal of any filing required by this section upon a satisfactory showing that an extension is justified.
- (q) Department services under this section are designated regulatory services and shall be billed as set out in 18 AAC 50.400(m) and shall be allocated to the emission control permit receipts account under AS 46.14.265. (Eff. __/_/2007, Register ___) Authority: AS 46.03.710 AS 46.14.010 Sec. 30, ch. 74, SLA 1993

18 AAC 50.400(m) is amended by adding a new paragraph to read:

(m) Unless the designated regulatory service is subject to a fixed fee set out in (a) – (l) of this section, or to the terms of a negotiated service agreement under AS 37.10.052(b) and 18 AAC 50.405, the permittee, owner, or operator shall pay an hourly permit administration fee for a designated regulatory service. . . . Designated regulatory services subject to this subsection include regulatory services for

(14) Development and issuance of a minor permit under 18 AAC 50.504

18 AAC 50 is amended by adding a new section to read:

18 AAC 50.504 Minor permits to implement BART The owner or operator of a source subject to BART must obtain a minor permit as required under 18 AAC 50.260.

18 AAC 50.990 is amended by adding new paragraphs to read:

(126) For purposes of 18 AAC 50.260, "natural conditions" includes naturally occurring phenomena that reduce visibility as measured in terms of light extinction, visual range, contrast, or coloration;

(127) "Best Available Retrofit Technology (BART)" means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous

emission reduction for each pollutant which is emitted by an existing stationary facility. The emission limitation must be established, on a case-bycase basis, taking into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology;

(128) "BART-eligible source" means the collection of emission units identified under 40 C.F.R. Part 51, Appendix Y, Section II, at an existing stationary facility defined in (130) of this section;

(129) "deciview" is a measurement of visibility impairment. A deciview is a haze index derived from calculated light extinction, such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired. The deciview haze index is calculated based on the following equation (for the purposed of calculating deciview, the atmospheric light extinction coefficient must be calculated from aerosol measurements): Deciview Haze Index = $10 \ln_e (b_{ext}/10 \text{Mm}^3)$ where b_{ext} = the atmospheric light extinction coefficient, expressed in inverse megameters (Mm³):

(130) "Existing stationary facility" means any of the 26 categories of stationary sources of air pollutants listed in 40 C.F.R. Part 51, Appendix Y, including any reconstructed source, which was not in operation prior to August 7, 1962, and was in existence on August 7, 1977, and has the potential to emit 250 tons per year or more of any air pollutant. In determining potential to emit, fugitive emissions, to the extent quantifiable, must be counted;

(131) "source subject to BART" means a BART-eligible source that can reasonably be anticipated to cause or contribute to visibility impairment in nearby Class I areas. A single source that is responsible for a 1.0 deciview change in visibility in a Class I area is considered to cause

visibility impairment. A single source that is responsible for a 0.5 deciview change in visibility in a Class I area is considered to contribute to visibility impairment.

(132) "In existence" means that the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State or local air pollution emissions and air quality laws or regulations and either has (1) begun, or caused to begin, a continuous program of physical on-site construction of the facility or (2) entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed in a reasonable time.

(133) "In operation" means engaged in activity related to the primary design function of the source.

18 AAC 50.990(47) is amended to read as follows:

(47) "impairment of visibility" <u>or visibility impairment</u> means any humanly perceptible change in visibility such as (<u>light extinction</u>, visual range, contrast, or coloration), from that which would <u>have</u> existed under natural conditions.

18 AAC 50.990(88) is amended to read as follows:

(88) "reconstruct" and "reconstruction" have the meaning given "reconstruction" in 40 C.F.R. 63.2, adopted by reference in 18 AAC 50.040, except that for purposes of 18 AAC 50.260 "reconstruction" has the meaning given in 40 CFR 51.301;

(Eff. 1/18/97, Register 141; am 6/14/98, Register 146; am 6/21/98, Register 146; am 9/4/98, Register 147; am 11/4/99, Register 152; am 1/1/2000, Register 152; am 2/2/2002, Register 161; am 5/3/2002, Register 162; am 11/15/2002, Register 164; am 8/8/2003, Register 167; am 10/1/2004, Register 171; am 12/3/2005, Register 176; am / /2007, Register)

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Authority:	AS 44.46.025	AS 46.14.140	AS 46.14.250
	AS 46.03.020	AS 46.14.150	AS 46.14.255
	AS 46.03.710	AS 46.14.160	AS 46.14.280
	AS 46.14.010	AS 46.14.170	AS 46.14.285
	AS 46.14.020	AS 46.14.180	AS 46.14.290
	AS 46.14.030	AS 46.14.210	AS 46.14.300
	AS 46.14.120	AS 46.14.230	AS 46.14.560
	AS 46.14.130	AS 46.14.240	Sec. 30, ch. 74, SLA 1993

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