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SERVICE DATE – FEBRUARY 15, 2006

SURFACE TRANSPORTATION BOARD

DECISION

STB Finance Docket No. 33407

DAKOTA, MINNESOTA & EASTERN RAILROAD CORPORATION CONSTRUCTION
INTO THE POWDER RIVER BASIN

Decided: February 13, 2006

On judicial remand, the Surface Transportation Board gives final approval to the Dakota, Minnesota & Eastern Railroad Corporation to construct and operate a 280-mile rail line from South Dakota to the Powder River Basin in Wyoming. The Board addresses the four environmental issues remanded by the court and determines that, with one exception, no new environmental mitigation is warranted. The Board concurs with and adopts the Supplemental Environmental Impact Statement prepared here, reimposes 147 mitigation conditions, and reestablishes an environmental oversight period.

By the Board:

Today, we approve the construction by the Dakota, Minnesota & Eastern Railroad Corporation (DM&E) of a 280-mile rail line to reach the Powder River Basin (PRB) in Wyoming. In Mid States Coalition for Progress v. STB, 345 F.3d 520 (8th Cir. 2003) (Mid States), the court vacated and partially remanded the Board's prior decision, issued in January 2002, granting this construction authority to DM&E.¹ Here, consistent with the court's instructions in Mid States, we complete our analysis of DM&E's proposal.

In Mid States, the court upheld most aspects of the Board's 2002 Decision, but found that four specific environmental matters had not been adequately assessed: (1) the question of whether mitigation for increased horn noise is warranted; (2) the relationship between vibration and horn noise; (3) the impact of any potential increased coal usage and related air emissions from this project; and (4) the assurance that the "Programmatic Agreement" that will govern the historic review process under section 106 of the National Historic Preservation Act, 16 U.S.C. 470f (NHPA), has been executed. The court instructed the Board to further address those four

¹ Dakota, Minnesota & Eastern Railroad Corporation Construction into the Powder River Basin, STB Finance Docket No. 33407 (STB served Jan. 30, 2002) (2002 Decision).

matters and to address the cost of any additional environmental mitigation that the Board might impose as a result.

In response to the court's decision, the Board's Section of Environmental Analysis (SEA) conducted an additional environmental analysis of the project and issued a detailed Supplemental Environmental Impact Statement (SEIS). SEA received input from various agencies,² communities, Native American tribes, organizations, and members of the general public. After careful analysis, SEA presented its final conclusions and mitigation recommendations on the four remanded issues in a Final SEIS.

After our review of SEA's supplemental environmental analysis, we concur with it and adopt it as our own. As directed by the court, upon reweighing the merits of the underlying proposal to reflect the results of the SEIS, we reaffirm the conclusion, reached in the 2002 Decision, that the DM&E project has significant transportation benefits and would further the public interest. We conclude that, with the environmental conditions we are imposing, this project satisfies the public convenience and necessity standard of 49 U.S.C. 10901.³ Accordingly, we approve DM&E's application, subject to the 147 environmental mitigation conditions from the Board's 2002 Decision approving this line, one of which has been expanded. A complete list of these conditions is set forth in the Appendix to this decision.

We agree with the Final SEIS that no need has been shown for additional air quality mitigation, mitigation to address the relationship between noise and vibration, or a condition requiring that DM&E provide or fund horn noise mitigation.⁴ But given the concerns raised by Rochester, MN, and other communities, about horn noise and the potential cost of establishing "quiet zones," we are modifying Condition No. 29 from the Board's 2002 Decision to increase the duties of DM&E's community liaison(s) to include providing assistance to communities or other entities interested in developing quiet zones. The modification we are making here to the

² The SEIS was prepared with the assistance of five Federal cooperating agencies that have statutory authority to review issues implicated by the project: the United States Department of Agriculture's Forest Service, the United States Department of Interior's Bureaus of Land Management and Reclamation, the United States Army Corps of Engineers, and the Coast Guard. SEA also received extensive input from other agencies, including the Energy Information Administration (EIA) of the Department of Energy, the United States Environmental Protection Agency (EPA), and the Federal Railroad Administration (FRA).

³ Under 49 U.S.C. 10901, we must authorize the construction and operation of a new line "unless the Board finds that such activities are inconsistent with the public convenience and necessity."

⁴ As discussed below, the Programmatic Agreement has been executed.

previously imposed environmental mitigation is unlikely to require DM&E to incur any increased financial burdens.

Finally, as part of the conditions to our approval of this proposal, we are again providing for continuing environmental oversight and are requiring DM&E to file quarterly reports during the oversight period to permit us to monitor the progress of DM&E's implementation of the various environmental conditions we are imposing. As indicated in the Board's 2002 Decision, our oversight will allow communities or other interested parties to seek redress if there are unanticipated environmental problems or material changes in the facts and circumstances upon which our approval is based. Our approval also is subject to the requirement that DM&E use the environmentally preferable routing alternatives set forth in the 2002 Decision, slip op. at 41.

BACKGROUND

Nature of the Proposal and the 1998 Decision.

In February 1998, DM&E sought authority from the Board under 49 U.S.C. 10901 to construct and operate an approximately 280-mile rail line extension from near Wall, SD, so that it could reach certain coal mines in Wyoming's PRB. The proposed line was intended to allow DM&E to become the third rail carrier to transport low-sulfur coal from the PRB into the Midwest.⁵ In so doing, DM&E hoped to generate the funds needed to completely upgrade its existing 598-mile rail system in South Dakota and Minnesota. The Board made a preliminary finding in 1998 that there would be transportation and other public benefits from the proposed new line due to improved productivity and efficiency over this shorter route from the PRB to the areas served by DM&E.⁶ In addition, the Board concluded that existing shippers would not be harmed by the project and that DM&E should be able financially to carry the project through to completion. Final action on the proposal was deferred, however, until the Board could assess the nature and extent of the environmental issues associated with the project, as required by the National Environmental Policy Act, 42 U.S.C. 4321 et seq. (NEPA), and related environmental laws.

The Initial Environmental Review Process.

Shortly after DM&E's application was filed, the Board began an environmental review process that took nearly 4 years to complete. SEA first prepared an approximately 5,000-page

⁵ BNSF Railway Company (BNSF) and the Union Pacific Railroad Company (UP) currently serve the PRB.

⁶ Dakota, Minnesota & Eastern Railroad Corporation Construction into the Powder River Basin, STB Finance Docket No. 33407 (STB served Dec. 10, 1998) (1998 Decision).

Draft Environmental Impact Statement (EIS),⁷ issued for public review and comment in September 2000. SEA received about 8,600 written comments. In addition to reviewing these written comments, SEA hosted 12 public meetings attended by more than 1,700 persons.

SEA then issued an approximately 2,500-page Final EIS in November 2001, which contained further detailed analysis in response to the input received on the Draft EIS, addressed a broad range of environmental issues and alternatives, and suggested numerous mitigation measures to address concerns raised during the EIS process. The EIS examined not only the impacts of constructing the new line, but also the rehabilitation of DM&E's existing line in Minnesota and South Dakota that would occur because of the DM&E project.

During the course of the environmental review, DM&E submitted negotiated agreements that it had executed with 51 of the 56 affected communities on its existing line, setting forth mutually satisfactory measures for addressing potential environmental impacts on those communities and addressing other local concerns. After reviewing those agreements, SEA recommended that the Board require compliance with them if the Board authorized the construction. The Board did so in the 2002 Decision.⁸

The 2002 Decision.

In January 2002, the Board issued the 2002 Decision. Based on the environmental information amassed in the EIS, the Board considered whether the environmental impacts and/or projected cost of environmental mitigation should alter the preliminary determination made in the 1998 Decision as to the viability of the project. After reviewing the EIS, the Board found that DM&E's proposal would result in some potentially significant adverse environmental impacts, but that the mitigation conditions set out in the Final EIS were reasonable and feasible measures to reduce, or in some cases eliminate, these impacts. The Board recognized that, even with this mitigation, some significant adverse impacts would remain. Nevertheless, the Board did not find the impacts severe enough to warrant disapproving construction of the proposed new line, in view of the significant transportation and public benefits from the proposal. These

⁷ An EIS is the detailed written statement required by NEPA for "major federal actions significantly affecting the human environment." 42 U.S.C. 4332(2)(C). See 40 CFR 1508.11; 49 CFR 1105.4(f).

⁸ The Board encourages voluntary agreements between an applicant railroad and affected communities because privately negotiated solutions often are more effective, and in some cases more far-reaching, than environmental mitigation the Board could impose unilaterally. Therefore, when such agreements are submitted to it, the Board generally will require compliance with such negotiated agreements in lieu of local or site-specific environmental mitigation that it otherwise would impose.

benefits included: (1) the introduction of a viable and safe competitive rail service by a third carrier that would be as much as 390 miles shorter than the existing carriers' routes to the areas served by DM&E, and thereby offering reliable service for midwestern utilities to obtain coal in a period of increased energy demand; and (2) the attendant upgrade of DM&E's current system, enabling improved service to DM&E's current customers. Accordingly, the Board approved the project, subject to extensive environmental conditions addressing both short-term (construction-related) impacts and impacts related to long-term operation of unit coal trains and requiring the use of environmentally preferable routes. The Board also provided for a formal environmental oversight period, to allow monitoring of DM&E's progress in implementing the environmental conditions.

The Court Proceeding.

Several petitioners, representing a variety of interests, challenged the 2002 Decision in court on multiple grounds. The court in Mid States vacated and partially remanded the Board's decision. The court upheld the Board's determination that this project would be financially viable and the Board's analysis of most of the environmental issues that had been raised. The court found, however, that additional discussion or analysis was necessary on four specific environmental matters.

First, although it specifically upheld the methodology used in the EIS for examining noise, the court stated that the Board needed to do more to explain its conclusion that mitigation for the increased locomotive horn noise resulting from this project was unwarranted.⁹

Second, noting that the EIS had included separate analyses for noise and vibration, the court directed the Board to address in more detail the possible combined effects on households experiencing both additional noise and additional vibration, as the synergies between the two had not been considered.¹⁰

Third, the court directed the Board to examine the potential indirect air emission impacts of increased coal usage that might result from lower transportation rates brought about by this project.¹¹ The court noted that, during the EIS process the Board had acknowledged that the Clean Air Act's requirements would encourage many utilities to shift to western, low-sulfur coal, the type of coal that the new line would carry. But the Board had reasoned that such a shift would occur with or without the new line, because two other railroads, BNSF and UP, already

⁹ Mid States, 345 F.3d at 536.

¹⁰ Id. at 537.

¹¹ Id. at 548-50.

transported low-sulfur coal out of Wyoming, and the proposed project would merely provide a shorter and straighter route. The court found this reasoning unpersuasive.¹² It also rejected the argument that the potential air impacts of burning low-sulfur coal were too speculative and too far removed from the Board's approval of the construction and operation of this rail line for the Board to be required to consider them in its NEPA analysis in this case.¹³ The court faulted the EIS for failure to address three computer simulation models (PROSYM, PROMOD, and GE-MAPS) identified by some commenters that allegedly could have been used to forecast the effects of the DM&E project on the nationwide consumption of coal.¹⁴

Finally, the court ruled that the Board's authorization to construct this line had been premature under the NHPA, because the Programmatic Agreement addressing the analysis of cultural and historic resources had not yet been executed.¹⁵

Petitions for rehearing of the court's decision, filed by the Board and various other parties, were denied on January 30, 2004.

The Supplemental Environmental Impact Statement Process.

On March 3, 2004, the Board issued a notice that it had begun work on the four remanded environmental issues, consistent with the court's Mid States decision. On April 15, 2005, SEA and the cooperating agencies issued a Draft SEIS addressing in detail the four environmental issues remanded by the court. SEA sought comments on all aspects of the Draft SEIS during a 45-day comment period. SEA received 45 written comments submitted by Federal, state, and local agencies, Native American tribes, organizations, communities, and concerned citizens. The comments addressed not only the four remanded issues, but other matters that had been upheld by the court, were unchallenged in Mid States, or were raised for the first time in response to the Draft SEIS.

On December 30, 2005, SEA issued a Final SEIS, responding to the public comments and setting forth SEA's final conclusions and environmental mitigation recommendations.

¹² Id. at 549.

¹³ Id. The court noted that the Council on Environmental Quality (CEQ) has specific regulations setting forth the procedures to be used by an agency where there may be incomplete or unavailable information on the extent of an indirect environmental effect.

¹⁴ Id. at 550.

¹⁵ Id. at 554-55.

DISCUSSION AND CONCLUSIONS

As previously noted, the court in Mid States remanded this case only for further review and analysis of four specific environmental issues identified by the court.¹⁶ With the assistance of SEA, we have now assessed these issues and have taken into account the cost of any necessary additional mitigation to address these matters.¹⁷

We concur in SEA's analysis and recommendations in the Final SEIS, including those matters not specifically discussed here. We are satisfied that the SEIS took the requisite "hard look" at the four remanded environmental issues and responded to the concerns raised by interested parties on these and other issues. After reweighing the merits of the underlying proposal to reflect the results of the additional analysis and the cost of the recommended change to one of the mitigation conditions previously imposed, we give our final approval for DM&E to construct and operate the new line, subject to the imposition of all of the terms and conditions imposed in the 2002 Decision with the modification recommended by SEA to existing Condition No. 29.

The Requirements of NEPA.

NEPA requires Federal agencies to examine the environmental effects of proposed Federal actions and to inform the public concerning those effects. Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, 462 U.S. 87, 97 (1983). Under NEPA and related laws, we must consider significant potential beneficial and adverse environmental impacts in deciding whether to approve a railroad construction as proposed, deny the proposal, or grant it with conditions, including environmental mitigation conditions. The purpose of NEPA is to focus the attention of the government and the public on the likely environmental consequences of a proposed action before it is implemented, in order to minimize or avoid potential adverse environmental impacts. Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989) (Marsh). While NEPA prescribes the process that must be followed, it does not mandate a particular result. Mid States, 345 F.3d at 533-34. Thus, once the adverse environmental effects

¹⁶ While the court was satisfied that the "Board had sufficient evidence before it to conclude that DM&E could complete this project," 345 F.3d at 552, it did caution the Board to take into account "additional costs, if any, that may arise from the environmental analyses that it will conduct on remand" and "to incorporate its new findings appropriately into the body of evidence that it has already amassed before making a final determination on this matter." Id. As explained in the 2002 Decision, the Board's mitigation is estimated to cost up to \$140 million.

¹⁷ We also address in this decision a letter submitted by Olmsted County, MN, dated January 24, 2006, and a letter to SEA from EPA, dated February 3, 2006, reviewing the Final SEIS.

have been adequately identified and evaluated, we may conclude that other values outweigh the environmental costs. Robertson v. Methow, 490 U.S. 332, 350-51 (1989); City of Shoreacres v. Waterworth, 420 F.3d 440, 450 (5th Cir. 2005) (Waterworth).

The Remanded Issues.

The SEIS reflects SEA's independent analysis on each of the remanded environmental issues. However, almost all of the concerns raised during the SEIS process involve the horn noise and air emissions issues. Therefore, this decision will focus on these two issues, as well as certain other matters raised in comments to the Draft SEIS.

1. Horn Noise Mitigation.

In the EIS, SEA determined that thousands of noise sensitive receptors could be exposed to adverse levels of noise due to train horn soundings. In the 2002 Decision, the Board imposed 11 noise mitigation measures, including measures that would reduce horn soundings to some extent (i.e., grade crossing improvements and grade separated crossings in Rochester, MN, and Pierre, SD).

Following further analysis of whether mitigation for horn noise would be warranted here and consideration of all of the comments on the horn noise mitigation issue, the Final SEIS concluded, consistent with the Board's practice in past cases, that the kind of mitigation requested by Rochester, Olmsted County, and some of the other commenters — requiring DM&E to establish "quiet zones" or fund or provide insulation treatments at the noise receptor locations, or build sound walls — would not be reasonable or appropriate in this case.¹⁸

We concur with SEA's analysis and conclusions. As detailed in the SEIS, train horn soundings are a safety issue regulated by the FRA. FRA has recently addressed the issue of quiet zones and has adopted new regulations that provide communities concerned about horn noise — including those affected by the DM&E project — an opportunity to eliminate or reduce train horn soundings without compromising safety.¹⁹ FRA's new regulations specifically make the funding of quiet zones the responsibility of the community, not the railroad.

¹⁸ See Draft SEIS, Chapter 1, at pages 1-13 to 1-16, Chapter 2, at pages 2-7 to 2-15; Final SEIS, Chapter 2, at pages 2-10 to 2-30 and 2-34 to 2-40.

¹⁹ See Final SEIS, Chapter 2, at pages 2-11 to 2-13. According to FRA, communities in 26 states now are coordinating with FRA to establish or maintain quiet zones. These communities vary in size, geographic area, and amount of train traffic. Id. at page 2-13.

As the SEIS notes, Rochester, Olmsted County, or any other community or entity that wishes to establish a quiet zone is free to pursue the development of a mutually acceptable negotiated agreement with DM&E, and see if DM&E would voluntarily provide some financial assistance.²⁰ Moreover, funding assistance for quiet zone improvements may be available from various Federal, state, and local sources.²¹ Thus, notwithstanding the scale of the DM&E project, and its impact on noise, we do not believe it is necessary or appropriate for us to require DM&E to establish or fund a quiet zone (or zones) as mitigation here.

We also will not require the construction of sound walls to lessen the effect of horn noise. The Final SEIS shows that, in this case, sound walls could create safety problems for both automobile traffic and pedestrians.²² It further shows that sound walls would be of questionable effectiveness in Rochester and other communities along the existing DM&E line because numerous road crossings located along this particular line would, by creating openings in the barriers, allow sound to escape.²³

As the SEIS notes, where there is substantial horn noise many of the noise-sensitive receptors should be eligible for wayside noise mitigation under the noise conditions in the 2002 Decision. But, as the Final SEIS explains, neither Olmsted County, Rochester, nor any other community affected by this project has presented circumstances so unique as to warrant imposing mitigation for horn (as opposed to wayside) noise.²⁴ Many parties have expressed

²⁰ As previously noted, 51 of the 56 communities along the existing line have entered into negotiated agreements with DM&E addressing a broad range of issues of local concern. We are requiring compliance with these agreements as a condition to our approval of this project. Moreover, we reaffirm here the determination in the 2002 Decision (slip op. at 13) that, to encourage and give effect to negotiated solutions whenever possible, the opportunity to negotiate such agreements (and to ask us to impose compliance with them as conditions, in lieu of site specific mitigation that would otherwise apply) will remain available throughout the environmental oversight period.

²¹ See Final SEIS, Chapter 2, at page 2-18.

²² Id. at pages 2-27 to 2-28.

²³ Olmsted County points out that a sound wall has been effective in Anaheim, CA. But Anaheim does not have numerous openings in the sound wall to allow vehicular traffic to cross the rail line, as would be required for Rochester. Thus, as the Final SEIS concludes, while sound walls can be effective when used in the proper environment, it would be inappropriate and unduly onerous to impose on DM&E the huge cost of sound walls (estimated to be \$19 million for Rochester alone) in the circumstances presented in this case.

²⁴ Id. at pages 2-34 to 2-35.

concern about noise levels for residences along the rail line in Rochester, particularly if and when DM&E were to operate the entire projected level of 37 coal trains a day. However, it is not unusual for trains to go through residential communities or for rail traffic on existing lines to increase. And although the world-renowned Mayo Clinic is in Rochester, it is not located directly on the rail line. Rather, it has a two-to three-block buffer zone separating its facilities from the DM&E line.²⁵

In short, we do not believe that additional noise mitigation, beyond what was imposed in the 2002 Decision, is warranted. Nevertheless, given the concerns of Olmsted County, Rochester, and other communities about horn noise, we will, as the Final SEIS recommends, revise Condition No. 29 from the 2002 Decision so as to specifically require DM&E's community liaison(s) to assist communities or other entities interested in establishing and funding quiet zones.

2. Relationship Between Vibration and Noise.

On the remanded noise and vibration relationship issue, the Draft SEIS presented further analysis to show that there would be no increase in the perception of noise as a result of this project at the levels of vibration anticipated.²⁶ None of the comments raised concerns with SEA's methodology or conclusions. Thus, the Final SEIS explained that there is no need for mitigation measures beyond those previously imposed by the Board in the 2002 Decision. We agree with the analysis and conclusions reached on this issue in the SEIS.

3. Potential Air Emissions from Increased Availability of PRB Coal.

As directed by the court in Mid States, SEA has conducted an extensive analysis to determine how the consumption of PRB coal might change due to the lower transportation rates that could result from completion of this project, and how these changes might in turn affect air quality.

The first step was to select the computer model best-suited to assess these impacts. As suggested by the court in Mid States, SEA considered the PROSYM, PROMOD, and GE-MAPS models, but found that those models would not allow it to forecast changes in energy demand and production and associated air emissions changes.²⁷ SEA also examined EPA's Integrated

²⁵ Id. at pages 2-19 to 2-21, 2-34 to 2-36.

²⁶ Draft SEIS, Chapter 3.

²⁷ A detailed discussion of these models, which are basically economic planning tools for the utility industry, is set forth in Chapter 4 of the Draft SEIS, at page 4-5.

Planning Model (IPM), as well as EIA's National Energy Modeling System (NEMS), and SEA had discussions with both EPA and EIA about their modeling options. SEA determined that NEMS was best suited to the particular task directed by the court, because it not only forecasts coal supply and demand but also quantifies environmental impacts. It is widely used by the Legislative and Executive branches of the government in predicting energy use. Furthermore, the only other available model that could have provided meaningful results, EPA's IPM, itself relies on energy-related data supplied by NEMS.²⁸

As the SEIS explains, NEMS incorporates inter-regional transportation costs that are designed to reflect supply and demand in U.S. energy markets.²⁹ The coal transportation rates in NEMS are based on actual transportation rate information between specific mines and specific plants. The actual data are then aggregated to determine an average transportation rate between the various supply and demand regions within NEMS. NEMS looks at the entire breadth of the national energy marketplace, simulating energy demand, growth, new generation (by fuel type and amount) and cost (including fuel cost), and models U.S. coal production, consumption, exports, imports, distribution and prices. NEMS determines the lowest cost supply of coal from 14 supply regions to 14 demand regions. Moreover, coal supply and demand is forecasted at least 20 years into the future, which is a sufficiently long horizon to quantify the effects over time of the completion of the DM&E project.

SEA supplied EIA with the information necessary for a rate sensitivity analysis using NEMS, which, with EIA's AEO 2005 forecasts, would allow a comparison of coal usage and concomitant air emissions with, and without, the construction of the proposed DM&E rail line. To do this, SEA first selected a range of potential rate changes likely to result from DM&E's project, based on the Board's assessment of DM&E's route mileage savings and DM&E's expected market shares, as set forth in 1998 Decision. SEA asked EIA to lower the average transportation costs in NEMS to reflect SEA's estimate of the potential impact of DM&E's entrance into the PRB. Because there is no available information on the specific rates DM&E might ultimately charge, SEA assumed that the transportation rate savings for shippers would be proportional to the mileage savings of DM&E's proposed route in comparison to existing routes of BNSF and UP.

To perform the rate sensitivity analysis, SEA asked EIA to perform model runs using four different rate assumptions: the rates equivalent to the proportional mileage savings of DM&E's proposed route in comparison to the existing routes of UP and BNSF (the most likely

²⁸ EIA agreed to run NEMS for the Board at no cost in this case, and no additional runs were needed to create the base-line case to which the effects of the DM&E project would be compared, because EIA's most recent Annual Energy Outlook 2005 (AEO 2005) forecasts already fulfilled this need.

²⁹ See, e.g., Final SEIS, Chapter 4, at pages 4-3 to 4-4.

scenario based on the 1998 Decision), as well as rates both higher and lower than those rates, to determine whether the expected rate changes that would result from this project would significantly affect the consumption of PRB coal.³⁰ SEA asked EIA to focus the analysis on the years 2010, 2015, and 2025,³¹ because, by examining various alternative scenarios in a rate sensitivity analysis over time, SEA would be better able to assess the extent to which consumption of PRB coal and resulting air emissions might be influenced by changes in transportation rates brought about by the completion of this project.

Turning to the air emissions part of the study, SEA requested that EIA report its results with respect to sulfur dioxide, nitrogen oxides, carbon dioxide, and mercury, as NEMS has the ability to estimate those emissions. Because NEMS does not evaluate carbon monoxide and particulate matter, SEA calculated those emissions separately, using NEMS data.³²

As the SEIS explains, the rate sensitivity analysis and report that EIA produced³³ show that little additional coal would be consumed, either regionally or nationally, due to this project. It further shows that the small changes in PRB coal usage as a result of this project would translate to minimal changes in air emissions from the electric power sector, both nationally and regionally.³⁴ For example, according to EIA's report, on both national and regional levels, projected air emissions for sulfur dioxide, nitrogen oxides, carbon dioxide, and mercury associated with the small increase of additional coal usage would be less than 1% and, in the one region where it appears that mercury emissions would be somewhat larger, the increase would be offset by a corresponding decrease in a neighboring region. Projected air emission increases for carbon monoxide and particulate matter would also be less than 1%. And any changes in regional sulfur dioxide, nitrogen oxides, and mercury emissions — as well as any significant changes in the blend of coals burned by individual power plants that might use PRB coal transported by DM&E, or new power plants that are built that would do so — would be

³⁰ The four alternative rate scenarios are explained in detail in the Final SEIS, Chapter 4, at pages 4-6 to 4-7 and 4-23 to 4-27.

³¹ These years correspond to the study periods in the Board's 2002 Decision and EIA's AEO 2005 forecasts.

³² SEA determined that only a small (less than 1%) change in those emissions would likely occur as a result of the project. Draft SEIS, Chapter 4, at pages 4-38 to 4-41; Final SEIS, Chapter 4, at pages 4-10 to 4-11.

³³ Reproduced in the Draft SEIS as Appendix G.

³⁴ Final SEIS, Chapter 4, at pages 4-8 to 4-11.

constrained by all applicable environmental laws and other regulatory constraints that apply to power plants (including EPA's new Clean Air Interstate and mercury rules).³⁵

NEMS, which is essentially a national and regional modeling tool, could not be used to determine the extent of any local impacts on air emissions from the project. The NEMS study does indicate, however, that, under the most likely scenario (the so-called "Low 4pct scenario"), up to 3 million additional tons of coal could be used in 2025 over the 1,425 million tons already projected to be burned without the anticipated project-related decrease in PRB coal transportation rates. Thus, based on the NEMS analysis, we cannot rule out the possibility that, at certain locations, there could be an increase in certain air emissions because more PRB coal would be consumed as a result of this project, although we cannot know whether and where that might actually occur.³⁶

Specifically, as the SEIS explains,³⁷ to be able to reasonably foresee the likely impacts of this project on a local level, we would need to know not only what existing or new power plants would actually use DM&E's service, but also whether they would otherwise not burn PRB coal, not burn as much coal, or burn a different mix of coal. This cannot be determined in advance here with any degree of confidence for a variety of reasons set forth in the Draft SEIS (at pages 4-42 to 4-43) and the Final SEIS (at page 4-34, n.52).³⁸

Given the inherent uncertainty and data gaps discussed above and in the SEIS, SEA concluded that any attempt to determine the locations where emissions would increase on a local basis, and to measure the amount of such an increase, would lack a sound foundation and would instead be largely speculation. As noted above, CEQ has established procedures (at 40 CFR 1502.22(b)) for dealing with circumstances such as this, where critical information is unavailable or incomplete.

³⁵ Draft SEIS, Chapter 4, at pages 4-28 to 4-42 and 4-52 to 4-53; Final SEIS, Chapter 4, at page 4-34. There were no Federal standards for carbon dioxide or mercury at the time EIA ran the rate sensitivity analysis in this case. However, in March 2005, EPA issued rules to regulate mercury, as well as additional regulations for sulfur dioxide and nitrogen oxides emissions at power plants (the Clean Air Interstate Rule). These rules will apply to the utilities in DM&E's core markets.

³⁶ See Draft SEIS, Chapter 4, at pages 4-45 to 4-51.

³⁷ Id. at pages 4-42 to 4-44; Final SEIS, Chapter 4, at pages 4-11 to 4-13.

³⁸ Indeed, various commenters including EPA and the Western Coal Traffic League (WCTL) concurred in SEA's determination that it would be difficult to specifically determine the local area impacts caused by future coal usage from this project.

CEQ's rules require that in this situation an agency should explain the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment; summarize the existing credible scientific evidence that is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment; and evaluate the potential impacts given the informational limitations that it faces. 40 CFR 1502.22(b). As suggested by the court in Mid States, SEA followed these procedures in the Draft SEIS.³⁹

As explained in the SEIS, the Board would have no way to fashion appropriate additional air quality mitigation to address the potential increase of local emissions in this case.⁴⁰ We have no power to impose environmental mitigation directly on power plants. And any attempt to limit the amount of PRB coal to be delivered to particular plants would ultimately be ineffective because, if DM&E could only deliver a certain amount of PRB coal to a particular power plant (or plants), those plants could simply look to BNSF or UP to supply any additional PRB coal that they might want. Nor has this agency, its predecessor (the Interstate Commerce Commission), or any court sought to restrict interstate commerce by limiting the amount of traffic a railroad can carry over a rail line and deliver to any particular customer.

We agree with SEA's determination that none of the comments on the Draft SEIS showed a need for further analysis or additional modeling, using NEMS or any other model. A number of the commenters supported SEA's methodology and conclusions on the air emissions issue,⁴¹ and the Final SEIS responded in detail to the concerns other commenters raised on model selection, model inputs, and model results. While several commenters raised questions about SEA's approach, none showed that the decision to do a rate sensitivity analysis was inappropriate or that a model other than NEMS would have been preferable.

For example, the Sierra Club suggested that the Board was required to study the potential impacts of increased overall use of PRB coal, and not just the amount of additional coal anticipated to be used as a result of this project. However, this suggestion misconstrues the court's remand and overstates the Board's authority to regulate the effects of coal usage on air quality. The court directed the Board on remand to consider the effects of this project on PRB coal use and any adverse effects that might result from burning additional coal coming out of the

³⁹ See Draft SEIS, Chapter 4, at pages 4-44 to 4-52. See also Final SEIS, Chapter 4, at pages 4-12 to 4-14.

⁴⁰ See Draft SEIS, Chapter 4 at page 4-52 to 4-53; Final SEIS, Chapter 4 at pages 4-15 and 4-40 to 4-41.

⁴¹ See, e.g., EPA's letter dated February 3, 2006.

PRB as a result of allowing this third rail line to serve the PRB region.⁴² Therefore, we have focused on the consequences of this project, using NEMS to look at how transportation rates and coal usage would change with DM&E's entrance into the marketplace, and comparing those results to a base line study (EIA's AEO 2005 forecasts). See, e.g., TOMAC v. Norton, No. 05-5206 (D.C. Cir. Jan. 6, 2006) (TOMAC).

The Sierra Club appears to object to any increase in coal consumption to satisfy the growing demand for energy in the United States. But our review of the proposed DM&E construction project is not an appropriate venue for the Sierra Club to pursue its larger national agenda. Other agencies such as EPA, and not the Board, are responsible for regulating the effects on air quality of increased coal usage generally.

While some commenters raised concerns related to the choice of a model, there were good reasons to select NEMS. As detailed in the SEIS, NEMS is a national forecasting model that also provides data on air emissions. The only other national model capable of producing similar forecasting results, EPA's IPM, itself relies on NEMS' energy generation data, and it was certainly reasonable to choose to use the originator of these data rather than the recipient of them. Finally, it would have been pointless to do an alternate computer run using IPM, as the PRB Resource Council suggested, because using the same data and inputs in both models would presumably yield the same results.

EPA and Minnesotans for an Energy Efficient Environment questioned whether the 20-year modeling period used in NEMS was long enough for projecting the long-term impacts of this project. However, as the Final SEIS explains (and as EPA itself acknowledges in its letter dated February 3, 2006), a longer forecast period would run the risk of being less reliable and more speculative, especially in light of the many unpredictable fluctuations in the energy field.⁴³

As the Final SEIS notes, the projected large increase in demand for PRB coal between now and 2025 does not cast doubt on the conclusion of the rate sensitivity analysis that DM&E's entry into the PRB marketplace would add little additional coal to this projected increase.⁴⁴ This is because virtually all of the projected increase would occur even without construction and operation of this project, given the growth of the domestic economy, the regulatory constraints on sulfur dioxide imposed by the Clean Air Act (which will continue to make low sulfur PRB coal attractive to power plants), electric power deregulation, and the cost of coal compared to natural gas and other available energy sources.

⁴² Mid States, 345 F.3d at 549, 550.

⁴³ Final SEIS, Chapter 4, at pages 4-20 to 4-22.

⁴⁴ Id. at page 4-28.

The Sierra Club seems to assume that any increase in demand for PRB coal up to 100 million tons (the maximum DM&E has said it would carry) would be met by DM&E alone. But, as explained in the Final SEIS,⁴⁵ there is every reason to believe that, regardless of whether DM&E enters the PRB transportation market as a third competitor, virtually all of the expected year-by-year increases in demand for PRB coal could be met by the existing carriers on their existing routes if the DM&E line is not built. Both BNSF and UP have recently rehabilitated and expanded their own PRB routes by double-tracking and triple-tracking, thereby increasing their ability and capacity to transport additional PRB coal. They have every incentive to continue to take such actions to meet future increases in demand, given the fact that their coal traffic is profitable. In short, there will continue to be a demand for more PRB coal in the future, and this project is only one of the ways to satisfy that demand.

Turning to other concerns, the scope of the air emissions analysis in the Draft SEIS was sufficiently broad, and there was no need for a full evaluation of global warming and acid rain in this case, as some of the commenters suggested. As SEA noted, the modest project-related increases in overall coal usage found in the NEMS study imply that any impacts of this project on global warming and acid rain would necessarily be modest as well.⁴⁶ Thus, this case is not the proper vehicle in which to address these concerns.

Similarly, it is neither necessary nor appropriate for the Board to attempt to consider the potential impacts of any future regulations encompassing carbon dioxide, as some commenters requested. No regulations of this greenhouse gas have yet been enacted in the United States, and, as the Final SEIS notes, any attempt to predict when such regulations might take effect, or the requirements of any such regulations, would be purely conjectural.⁴⁷

Finally, some commenters questioned whether there is a need for this project if DM&E's entry would result in little additional coal usage. However, as WCTL and others have stated, even if the line is not absolutely needed to meet the growing demand for PRB coal, it would help to meet this demand even if it would not be the only way to meet that demand. Our rate sensitivity analysis simply shows that this line itself would not create significant additional demand that would not otherwise exist.

SEA received some comments suggesting that recent changes in environmental regulations will likely reduce the effects that lower transportation rates from this project might have on coal consumption and resulting air emissions, and thus could reduce the need for

⁴⁵ Id. at page 4-31.

⁴⁶ Id. at page 4-35.

⁴⁷ Id. at page 4-39.

increased capacity for PRB coal to some extent. However, we concur with the conclusion in the Final SEIS that, because of electric power deregulation and other pressures on the utility industry to reduce costs, the economical nature of PRB coal (which is relatively inexpensive to mine compared to other coals) will likely continue to make it an attractive fuel source, particularly to those facilities already using it, even if new laws require reduced emissions from fossil fuels in the future.⁴⁸ As SEA explained, retrofitting existing facilities that burn PRB coal to comply with new regulatory requirements can sometimes prove more economical than converting to other fuel sources, particularly natural gas, which continues to increase substantially in cost. Therefore, even if the recently enacted regulatory changes or any future regulatory changes reduce the attractiveness of PRB coal to some extent, an overall trend of increased demand for PRB coal is still likely.

In sum, we have fulfilled the court's requirement to conduct a thorough and extensive analysis to determine how consumption of PRB coal might change as a result of this project and what effect, if any, these changes might have on air emissions. The NEMS study shows that, on a national and regional basis, the impacts of this project on coal consumption and resulting air emissions would be small. At the same time, as the Final SEIS indicates, we cannot rule out the possibility that, at certain locations, there could be more PRB coal consumed as a result of this project, and therefore increased air emissions, particularly if the relatively small amount of additional coal consumed as a result of this project turns out to be used by a small number of power plants concentrated within a narrow geographic area. And we have no way to devise additional air quality mitigation to address the potential increase in local emissions, given the lack of critical information we would need to quantify impacts on a local basis, and the fact that we cannot impose environmental mitigation directly on power plants in a rail construction case.

Nothing has been identified in the SEIS process that calls into question the finding in the Board's prior decisions that there would be significant transportation and public benefits from the proposed construction due to improved productivity and efficiency. The public interest would be well served by this construction project due to the potential for increased competition for PRB coal to meet increased energy demand, lower costs (due to DM&E's geographic advantage to certain generation facilities in the midwest), and improved service to DM&E's existing shippers. Moreover, the SEIS makes it clear that any significant changes in the blend of coals burned by individual power plants that might use PRB coal transported by DM&E, or new power plants that are built that might use DM&E, would be subject to the same environmental laws as power plants that would not be served by DM&E. In these circumstances, we should not deprive the public of the very real, demonstrated public benefits of this project based on the speculative, ultimately unforeseeable, potential local air quality impacts examined here.

⁴⁸ Id. at page 4-39.

4. Ensuring That the Programmatic Agreement Governing Historic Review is Executed.

In Mid States, the court affirmed the agency's approach to the historic review required under the NHPA, but found that the Board had been premature in authorizing DM&E's construction of the line before the Programmatic Agreement that would govern the historic review process had been executed. As explained in Chapter 5 of the Draft and Final SEIS, an executed Programmatic Agreement has since been secured, thus satisfying the concerns of the court.

Additional Issues.

1. IMRL Routing.

As discussed in more detail in Chapter 6 of the Final SEIS, following the Board's 2002 Decision DM&E obtained approval from the Board to acquire from I&M Rail Link (IMRL) and operate more than 1,000 miles of IMRL rail lines in Minnesota, Iowa, Kansas, Missouri, Wisconsin and Illinois.⁴⁹ Some commenters have argued that DM&E's acquisition of IMRL constitutes a changed circumstance that should be considered in the SEIS because it would give DM&E an alternative route for the coal trains originating on the line proposed in this proceeding.

The Board imposed conditions in both IMRL decisions that specifically preclude DM&E from routing PRB coal traffic over the former IMRL lines until the Board has undertaken an appropriate review of the environmental impacts that would be associated with such a routing.⁵⁰ The Board chose to defer such an analysis to a later time due to the uncertainty as to whether this new line would be built and, if built, what portion of the coal traffic originating on this line would move over the former IMRL lines.⁵¹ Because DM&E had not obtained funding to construct the proposed line or commitments from shippers to use the line, the Board concluded that it was premature to conduct such an assessment when the acquisition of the IMRL lines was approved.

⁴⁹ Iowa, Chicago & Eastern R.R.—Acquisition and Operation Exemption—Lines of I&M Rail Link, STB Finance Docket No. 34177 (STB served July 22, 2002) (IMRL I) (denying stay of exemption); Dakota Minnesota & Eastern R.R. and Cedar American Rail Holdings, Inc.—Control—Iowa, Chicago & Eastern R.R., STB Finance Docket No. 34178 et al. (STB served Feb. 3, 2003) (IMRL II) (approving acquisition).

⁵⁰ IMRL I, slip op. at 13-19; IMRL II, slip op. at 21.

⁵¹ See id. at 21 & nn. 47-48.

We agree with SEA that it was not necessary to delay the SEIS to include consideration of the impacts of the IMRL acquisition. See, e.g., Marsh, 490 U.S. at 373; TOMAC (reassessments must end at some point, or NEPA simply becomes a tool to stall new projects indefinitely); see also Vermont Yankee v. NRDC, 435 U.S. 519 (1978) (if the agency meets NEPA’s basic requirements, it may fashion its own procedural rules to discharge its multitudinous duties). The IMRL acquisition and the DM&E construction project are separate and distinct, and each has its own utility and benefit. Accordingly, the acquisition transaction and the construction project are not “two links of a single chain,” and the precedent setting forth the proposition that connected actions should be evaluated together is thus inapposite. See Sylvester v. U.S. Army Corps of Engineers, 884 F.2d 394, 400-01 (9th Cir. 1989) (Sylvester), distinguishing Thomas v. Peterson, 753 F.2d 754, 759 (9th Cir. 1985) (Forest Service EIS on logging road required to include analysis of timber sales that would follow from construction of the road). While it is possible that the PRB construction project and the IMRL acquisition may also each benefit from the other, each project could exist in the absence of the other project. See Sylvester, 884 F.2d at 400.

The authority that we grant to DM&E here to construct this line is permissive. DM&E is not required to build the line. It will have to acquire the necessary right-of-way, secure financing, and obtain approvals from certain cooperating agencies before it can construct the new line. As a result, DM&E is required by the IMRL decisions to notify the Board when (if ever) the PRB construction project proceeds, and at that time to provide information regarding the number of additional trains that it expects to handle traffic on the new line that would move on the former IMRL lines, so that an environmental inquiry can be initiated at that time. DM&E is precluded from routing any traffic from the new line over the former IMRL lines until the Board conducts an appropriate environmental review. Thus, an environmental review of routing traffic in that manner is not required at this point. See Waterworth, 420 F.3d at 451.

2. Other Matters.

Several other matters, none of which were specifically remanded for further consideration by Mid States, were raised in the comments. First, EPA resubmitted the same comments it had previously submitted on wetlands issues, indicating that it did not believe its prior submission had been adequately considered. The comments generally involve additional information EPA believes DM&E should have been required to submit in this case. As the SEIS notes, however, specific mitigation to address wetlands issues was imposed in the 2002 Decision, requiring the carrier to obtain a section 404 permit from the Corps of Engineers prior to initiating construction-related activities that affect wetlands. As EPA itself recognizes in its letter dated February 3, 2006, the information EPA believes is needed should be provided in that process.

Olmsted County maintains that the Board should separately consider the impacts of horn noise on environmental justice (minority or low-income) communities. But the county has not provided any reason to believe that the horn noise analysis should be approached any differently for such communities. Olmsted County had specifically challenged the Board’s methodology for

identifying environmental justice communities along the existing rail line, and the court specifically upheld the Board's approach.⁵²

Finally, Rochester, Olmsted County, and the Minnesota Department of Transportation suggest that several of the previously imposed mitigation conditions should be modified so that they are triggered by the number of trains routed through Rochester, rather than by the amount of coal transported. The apparent concern here is that DM&E might avoid the conditions by routing empty trains through the city but finding alternative routes for loaded trains. While this is theoretically possible, it is our understanding that DM&E intends to run both loaded and empty trains on this line. Therefore, we see no reason at this time to modify our previously imposed conditions.

We note that, should the situation change, and should any party have reason to believe that a condition is not working as intended, or is being manipulated in such a manner that its intended purpose is not being served, then concerned parties may seek modifications under Condition No. 145, which is reimposed here.

CONCLUSION

We adopt SEA's conclusions and recommendations in the Final SEIS. For the reasons discussed above, we are reapproving this line construction, subject to all of the terms and conditions in the 2002 Decision, but are modifying Condition No. 29 to increase the duties of DM&E's community liaison(s) to assist in the establishment and funding of quiet zones. This modification is unlikely to require DM&E to incur any increased financial burdens.

We are satisfied that these environmental mitigation conditions (previously estimated to cost as much as \$140 million) are reasonable and feasible measures to reduce, or in some respects, eliminate the potential adverse impacts of this major rail construction project. In our view, this mitigation will provide appropriate safeguards to ensure safe operations and protect the environment to the extent practicable. We do not find that any additional mitigation is warranted or necessary.

While some have questioned whether this line would attract the levels of PRB traffic needed to justify the investment, whether or not there is a sufficient need for DM&E's new line ultimately will be decided by the financial community.⁵³ Therefore, it would be inappropriate for us to stand in the way of DM&E's going forward with this line, which has demonstrated transportation benefits and will further the public interest, because of speculation as to the level

⁵² Mid States, 345 F.3d at 541.

⁵³ See Mid States, 345 F.3d at 552 (agreeing with this analysis in the 2002 Decision, slip op. at 40).

of the need for this construction. Accordingly, for the reasons discussed above, in the Board's prior decisions, and in the EIS and SEIS, we are giving our approval for DM&E to construct and operate the proposed line, subject to DM&E's compliance with the environmental mitigation listed in the Appendix to this decision, and the requirement that DM&E use the environmentally preferable routes set forth in the 2002 Decision.

The issuance of this decision concludes the Board's proceeding, and the cooperating agencies now will issue decisions under their own governing statutes, based on the information set forth in the EIS and SEIS, our environmental mitigation here, and the various applications submitted to them by DM&E.

It is ordered:

1. DM&E is authorized to construct the proposed line, subject to the environmental conditions set forth in the attached Appendix, and the requirement that DM&E use the environmentally preferable routing alternatives set forth in the 2002 Decision.
2. We reserve jurisdiction to implement the oversight condition imposed in this decision, to allow us to monitor DM&E's progress in implementing the environmental mitigation and resolve any unanticipated environmental problems that arise. Our oversight will allow communities or other interested parties to seek redress if there are unanticipated problems or if there are material changes in the facts or circumstances. We will impose additional environmental conditions or modify our conditions to the extent that we determine that such action is warranted.
3. To assure compliance with our environmental mitigation conditions, DM&E must file the quarterly reports specified in Environmental Condition No. 147 for the duration of the environmental oversight period.
4. This decision is effective 30 days from the date of service.

By the Board, Chairman Buttrey and Vice Chairman Mulvey.

Vernon A. Williams
Secretary

APPENDIX: ENVIRONMENTAL CONDITIONS

GENERAL MITIGATION MEASURES

SAFETY

Grade Crossing/Warning Devices

- 1A. To address potential safety impacts at highway/rail grade crossings, Applicant, in accordance with its Grade Crossing Mitigation Plan, shall apply its proposed PCAPS-based grade-crossing protection formula to the crossings on the existing rail line in South Dakota and Minnesota, for the anticipated tonnage levels of coal to be moved (20 million tons, 50 million tons, or 100 million tons annually).

Applicant shall consult with appropriate Federal and State transportation agencies to determine the final design and other details of the grade-crossing protections. Implementation of all grade-crossing protections shall be subject to the review and approval of FRA and the appropriate State Departments of Transportation. As agreed to by Applicant, Applicant shall pay 90 percent of the costs associated with these project-related grade-crossing protection upgrades on Applicant's existing line.

This Condition shall not apply to crossings in communities that have executed Negotiated Agreements with Applicant that address the communities' safety concerns. In those cases, the terms of the Negotiated Agreement will apply, so long as implementation of the Negotiated Agreement achieves at least an equivalent level of grade-crossing protection. Applicant shall complete these grade-crossing protections upon reaching the annual tonnage level of coal (20 million tons, 50 million tons, or 100 million tons annually) specified in its plan and shall certify to the Board such completion as part of its quarterly reports required by Condition 147.

- 1B. To address potential safety impacts at highway/rail grade crossings, Applicant shall apply its proposed PCAPS-based grade-crossing protection formula to the crossings on the new rail line in Wyoming, South Dakota, and the Mankato area of Minnesota (assuming that Alternative M-2 is approved and constructed), for the anticipated tonnage levels of coal to be moved (20 million tons, 50 million tons, or 100 million tons annually).

Applicant shall consult with appropriate Federal and State transportation agencies to determine the final design and other details of the grade-crossings protections and grade separations on the new rail line. Implementation of all grade-crossing protections and separations on the new rail line shall be subject to the review and approval of FRA and the appropriate State Departments of Transportation. As agreed to by Applicant,

Applicant shall pay 100 percent of the costs associated with these project-related grade-crossing protections along the new rail line.

This Condition shall not apply to crossings where communities or other entities have executed Negotiated Agreements with Applicant that address safety concerns. In those cases, the terms of the Negotiated Agreement will apply, so long as implementation of the Negotiated Agreement achieves at least an equivalent level of grade-crossing protection. Applicant shall complete these grade-crossing protections upon reaching the annual tonnage level of coal (20 million tons, 50 million tons, or 100 million tons annually) specified in its plan and shall certify to the Board such completion as part of its quarterly reports required by Condition 147.

2. Applicant shall maintain the new and existing rail line and grade-crossing warning devices according to FRA track-safety standards (49 CFR Part 213).

Emergency Response

3. At least one month prior to initiation of construction activities in the area, Applicant shall provide the information described below, as well as any additional information, as appropriate, to each local emergency response organization or other similar body for communities within the project area regarding project-related construction and operation of both the new and existing rail line:
 - The schedule for construction throughout the project area, including the sequence of construction and reconstruction of public grade crossings and approximate schedule for these activities at each crossing.
 - Expected schedule for change in rail line operations along Applicant's existing system, including when changes in train speeds and levels of traffic are anticipated to occur, and current and new train speeds and levels of rail traffic.
 - A toll-free number for the Applicant's contact who shall be available to answer questions or attend meetings for the purpose of informing emergency-service providers about the project construction and operation.
 - Revisions to this information, including changes in construction schedule, as appropriate.
4. Applicant shall consult with the communities of Rochester, Owatonna, and Mankato, Minnesota, and Brookings and Pierre, South Dakota, and any other affected communities that so request, to coordinate train movements and emergency response and discuss the possible installation by the Applicant of a state-of-the-art electronic display board, or equivalent technology, such as a real time or Global Positioning System (GPS) train

location monitoring system in the local emergency-response center of each community showing the location of trains and/or the position of grade crossing warning signals.

5. Applicant shall coordinate with the appropriate State Departments of Transportation, counties, and affected communities to develop a program for installation of temporary notification signs or message boards on railroad property at public grade crossings, determined by the State and/or County to warrant such measures, clearly advising motorists of the impending increase in train traffic and train speeds along its existing system and commencement of operations along its new rail line. The format and lettering of these signs shall comply with the U.S. Department of Transportation (DOT), Federal Highway Administration's Manual on Uniform Traffic Control Devices, and shall be in place no less than 30 days before, and 6 months after, completion of project-related construction and reconstruction activities in the area. As an alternative, Applicant shall coordinate with the State Departments of Transportation to develop a mutually satisfactory media campaign to be conducted by Applicant throughout the counties and communities surrounding the rail line providing information and notice to the public of project-related changes along its existing system and commencement of operations along its new rail line. This campaign shall include the use of different media (radio, television, newspaper, public meetings, etc.) and may include such things as public-service announcements, advertisements, or legal notices. Prior to moving coal trains to and from the PRB, Applicant shall certify to the Board that it has complied with this condition as part of its quarterly reports required by Condition 147.
6. For each of the public grade crossings on the new and existing rail line, Applicant shall provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 CFR Part 655). The toll-free number shall be answered 24 hours per day by Applicant's personnel. Where Applicant's right-of-way is close to another rail carrier's crossing, Applicant shall coordinate with the other rail carrier to establish a procedure regarding reported accidents and grade-crossing device malfunctions.
7. Applicant shall consult with interested communities along its new and existing rail line to identify alternative safety measures to eliminate the need to sound train horns in the community, in accordance with FRA's final rule on the *Use of Locomotive Horns at Highway-Rail Grade Crossings*.
8. Applicant shall install reflective material on the back of all passive crossing warning devices, such as crossbucks, on the new and existing rail line. Reflective material shall be installed so that headlights from vehicles approaching the grade crossing on the opposite side of the rail line will strike the material and illuminate it to provide a continual illumination in the absence of a passing train and a flashing appearance when a train is passing due to the space between the rail cars. Prior to moving coal trains to and

from the PRB, Applicant shall certify to the Board that it has complied with this condition as part of its quarterly reports required by Condition 147.

9. To the extent practicable, Applicant shall minimize trains blocking grade crossings throughout its system.

Track Warning Devices and Track Infrastructure

10. Applicant shall properly maintain its new and existing rail line. Maintenance shall include trimming vegetation on railroad property that obscures visibility of oncoming trains and assuring that rail, railroad ties, track fastenings, and ballast material are in good repair, and that warning devices operate properly and are legible.

Hazardous Material Handling Issues

11. Prior to initiating any project-related construction and reconstruction activities, Applicant shall develop a Spill Prevention, Control, and Countermeasure Plan (Plan) to prevent spills of oil or other petroleum products and other hazardous materials during construction and reconstruction activities, and operation and maintenance of the rail line. At a minimum, the Plan shall address the following:

- Definition of what constitutes a spill.
- Requirements and procedures for reporting spills to appropriate government agencies.
- Methods of containing, recovering, and cleaning up spilled material.
- Equipment available to respond to spills where the equipment is located.
- List of government agencies and Applicant's management personnel to be consulted with in the event of a spill.

In the event of a spill, Applicant shall comply with its Plan and applicable Federal, State, and local regulations pertaining to containment of the spill and appropriate clean up.

12. Applicant shall comply with DOT Hazardous Materials regulations (49 CFR Parts 171 and 179) when handling, storing, or disposing of hazardous materials. Applicant shall dispose of all materials that cannot be reused in accordance with applicable Federal, State, and local waste management regulations.
13. Applicant shall coordinate with the U.S. Environmental Protection Agency, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, South Dakota Department of Environment and Natural Resources, and Wyoming Department of Environmental Quality to determine the exact location of hazardous-material sites known to occur within the existing or proposed rail line rights-of-way and comply with applicable laws concerning these sites.

14. Applicant shall develop internal emergency-response plans to allow for agencies and individuals to be notified in an emergency and to locate and inventory emergency equipment for use in dealing with emergencies. Applicant shall provide the emergency-response plans to the relevant State and local entities prior to moving coal trains to and from the PRB.
15. Applicant shall notify the United States Fish and Wildlife Service, and the appropriate State departments of natural resources, in the event of a reportable hazardous materials release with the potential to affect wetlands or wildlife habitat(s), particularly those of Federally threatened or endangered species.
16. Applicant shall use established standards for recycling or reuse of construction materials such as ballast and rail ties. When recycling construction materials is not a viable option, Applicant shall use disposal methods that comply with applicable solid hazardous waste regulations.

Fire Prevention

17. Prior to initiating any construction activities related to this project, Applicant shall, in consultation with the Natural Resource Conservation Service, local grazing organizations, appropriate Federal agencies, and local fire and emergency response departments, develop an adequate plan for fire prevention and suppression and subsequent land restoration, including natural habitats, during construction and operation of both the new and existing rail line. To the extent practicable, Applicant's plan shall ensure that all locomotives are equipped with functioning spark arresters on exhaust stacks and fire extinguishers suitable for flammable liquid fires and provide for the installation of low-spark brake shoes.

Miscellaneous

18. During project-related construction at grade crossings, when practicable, Applicant shall maintain at least one open lane of traffic at all times or provide for detours and associated signage, as appropriate, to allow for the quick passage of emergency and other vehicles.
19. In undertaking project-related construction activities, Applicant shall use construction materials and safety practices recommended by the American Railway Engineering and Maintenance of Way Association (AREMA) and the recommended standards for track construction in the AREMA Manual for Railway Engineering. Applicant shall maintain the track and provide for track inspection in compliance with AREMA and FRA requirements at 49 CFR 213.

20. Applicant shall adhere to Federal Occupational Safety and Health Administration (OSHA), FRA, and State construction and operational safety regulations to minimize the potential for accidents.
21. Where practicable, Applicant shall refuel locomotives at designated refueling locations. Applicant shall exercise care during refueling to prevent overflows. In no event shall Applicant conduct refueling activities in a location where an inadvertent spill would enter a watercourse, wetland, or other environmentally sensitive area.
22. Applicant shall make Operation Lifesaver programs available to communities, schools, and other organizations located along the new and existing rail line.
23. Applicant shall consult and coordinate with school districts regarding placement on railroad property of equipment to permit use of in-vehicle warning devices on school buses.
24. Applicant shall assure that roadway approaches and rail line crossings for both new and existing grade crossings are constructed or re-constructed according to the standards of the American Association of State Highway and Transportation Officials (AASHTO) design manual, applicable State rules, guidelines, or statutes, and the AREMA standards. The goal of grade-crossing design should be to eliminate rough or humped crossings to the extent practicable.

TRANSPORTATION

25. To the extent practicable, Applicant shall confine all project-related construction traffic to a temporary access road within the right-of-way or established public roads. Where traffic cannot be confined to temporary access roads or established public roads, Applicant shall make necessary arrangements with landowners to gain access from private roadways. The temporary access roads shall be used only during project-related construction. Any temporary access roads constructed outside the rail line right-of-way shall be removed upon completion of construction, unless otherwise agreed to in accordance with Condition 80.
26. Applicant shall consult with the State Departments of Transportation in Minnesota, South Dakota, and Wyoming and local road authorities in the affected counties or townships to ensure that project-related construction and reconstruction activities are consistent with State and local transportation plans, projects and proposals.
27. Applicant shall coordinate with FRA, the State Departments of Transportation in Minnesota, South Dakota, and Wyoming, and local road authorities to develop a plan for the identification and eventual closure of limited-use public crossings, particularly those

at or below 100 Average Daily Traffic, where appropriate alternative public crossings are available.

28. To provide access for the safe movement of farm equipment to fields and pastures which otherwise would have to operate on public highways, as a result of road closures following construction and during operation of Applicant's rail yards, Applicant shall provide or develop appropriate alternative access to these fields and pastures. Alternatives for access could include development of frontage roads adjacent to yard boundaries, agreements for farmers to coordinate with the yard master to cross through the yard, if rail operations and safety conditions permit, or development of additional access roads.

LAND USE

29. Prior to initiation of construction or reconstruction activities related to this project, Applicant shall establish Community Liaison(s) to consult with affected communities, farmers, ranchers, businesses, landowners, and agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic public outreach; and assist communities and other entities in establishing quiet zones. Such assistance may include coordination with FRA for identification of appropriate supplemental and alternative safety measures at grade crossings where quiet zones are desired; identifying potential sources of funding; providing assistance preparing funding applications and grant requests; and coordinating with representatives of potential lending organizations. The Community Liaison(s) shall have access to Applicant's upper management. Applicant shall provide the name and phone number of the Community Liaison(s) to mayors and other appropriate local officials in each community through which the new and existing rail line passes.
30. In many communities, adjacent property owners have encroached on Applicant's existing right-of-way. Applicant shall make reasonable attempts to identify and notify these individuals of its proposed project-related reconstruction schedule through these areas prior to beginning reconstruction activities in the area.
31. Applicant shall erect temporary construction fencing, where appropriate, or permanent fencing, prior to initiation of construction or reconstruction activities related to this project. If practicable, in incorporated areas, permanent fencing shall consist of 8-foot high chain link fence installed along all rail line right-of-way adjacent to residential property. Applicant shall consult with appropriate State and local authorities in unincorporated areas to determine appropriate fencing design. Applicant shall inspect all fencing regularly and promptly repair any damaged fencing. This condition shall not apply to those communities that have executed Negotiated Agreements with Applicant.

32. In rural areas, Applicant shall minimize the installation of fencing to areas where safety is a concern and areas where fencing is required to prevent livestock wandering on to the rail line. Applicant shall consult with Tribal wildlife officials, the South Dakota Department of Game, Fish and Parks, the Wyoming Game and Fish Department, and the Minnesota Department of Natural Resources, other applicable agencies, and affected landowners to determine appropriate fencing designs for each State. Fencing in rural areas should generally consist of 5-strand barbed wire fence. In order to protect antelope and other big game, Applicant shall encourage landowners in areas where antelope are present to allow construction of 4-strand fence with a smooth bottom wire at least 16 inches above ground level and the top wire not more than 42 inches high, or other designs approved by the applicable State wildlife agency. Applicant shall consult with appropriate State and local authorities in rural areas to determine appropriate fencing design. In areas where the rail line is not fenced, appropriate signage shall be installed to protect the public.
33. At least 48 hours prior to initiating herbicide applications, Applicant shall make reasonable attempts to notify property owners adjacent to the right-of-way of its anticipated schedule for herbicide application. Reasonable attempts could include posting a notice on its web site or publishing its schedule in local newspapers.
34. Applicant shall ensure that all areas disturbed by project-related construction or reconstruction activities which are not owned by the railroad (such as access roads, haul roads, crane pads, and borrow pits), are promptly restored as closely to their original condition as is practical following conclusion of project-related construction or reconstruction activities.

Applicant shall coordinate with the State Departments of Transportation and Federal and State land management agencies, subject to approval of the land owner, to determine if temporary access roads developed for project-related construction should be removed and the area restored to its previous condition or retained for maintenance by the agency, State, or county to provide additional access to public lands.

Agriculture/Ranching

35. Applicant shall provide its project-related reconstruction and construction schedule to affected farmers and ranchers to allow them to determine whether they should continue to crop or graze in right-of-way areas or discontinue such activities due to impending construction and reconstruction activities.
36. Applicant's Community Liaison(s), established by Condition 29, shall work with farmers and ranchers to remedy any damage to crops, pastures, or rangelands caused by Applicant's project-related construction or reconstruction activities and develop appropriate measures to prevent encroachment into the rail line right-of-way. The

Community Liaison(s) also shall have authority to provide information on anticipated train schedules to farmers and ranchers to facilitate movement of equipment or livestock from one side of the rail line to the other.

37. In negotiations with farmers and ranchers, Applicant shall be guided by the Land Use Mitigation Policy and Plan negotiated between the Applicant with the Landowner Advisory Board, which addresses the following areas of concern:

- Direct and indirect land loss.
- Displacement of capital improvements (wells, windmills, corrals, outbuildings, irrigation systems, etc.).
- Noxious weed control.
- Fencing.
- Livestock casualty.
- Fire prevention and suppression.
- Fire casualty.
- Construction-related impacts.

Residential

38. Applicant's project-related construction vehicles, equipment, and workers shall not access work areas by crossing residential properties unless negotiated with and agreed to by the property owner.
39. In residential areas, Applicant shall store its equipment and materials in established storage areas or on Applicant's property to the extent practicable.
40. The Community Liaison(s), established in Condition 29, shall work with affected landowners to appropriately redress any damage to the landowner's property caused by Applicant's project-related construction or reconstruction activities.

Business and Industrial

41. Applicant's project-related construction vehicles, equipment, and workers shall not access work areas by crossing business or industrial areas, including parking areas or driveways, unless negotiated with, and agreed to by, the business owner.
42. In business and industrial areas, Applicant's project-related equipment and materials shall be stored in established storage areas or on Applicant's property. Parking of Applicant's equipment, or vehicles, or storage of materials along driveways or in parking lots is prohibited unless agreed to by the property owner.

43. The Community Liaison(s), established in Condition 29, shall work with affected businesses or industries to appropriately redress any damage to the business's property caused by Applicant's project-related construction or reconstruction activities.
44. Applicant shall insure that entrances and exits for businesses are not obstructed by project-related construction activities, except as required to move equipment.

Minerals and Mining

45. To help maintain the existing natural environment to the extent practicable, Applicant shall utilize materials such as rock, gravel, and sand available from local sources in its project-related activities.
46. Applicant shall consult with the owners of existing mines and quarries in the project area, particularly the quarry in Mankato, Minnesota, if Alternative M-3, the existing rail corridor alternative through Mankato, is built, to ensure that project-related construction and reconstruction activities minimize impacts to mine-related operations.
47. Prior to initiating construction of the new rail line, Applicant shall obtain any necessary permits from the U. S. Department of Interior, Bureau of Land Management (BLM) regarding mineral removal and oil and natural gas lessees.
48. Prior to undertaking project-related construction and reconstruction activities, Applicant shall make a reasonable effort to notify all mineral lessees/claimants where BLM has mineral ownership.

Federal Lands

49. Applicant shall obtain a Special Use Permit from the U.S. Forest Service (USFS) granting an easement for the rail line to cross lands administered by the USFS designated as National Grasslands prior to initiating any project-related construction activities on USFS lands. Any conditions required under this Special Use Permit, in addition to those imposed by the Board, shall be adhered to by Applicant for activities on USFS lands.
50. Applicant shall obtain a permit from the U.S. Department of Interior's Bureau of Reclamation (Reclamation) for crossing any facilities, irrigation ditches, or canals which are part of the Angostura Irrigation Project. Any conditions required under this permit, in addition to those imposed by the Board, shall be adhered to by Applicant for activities affecting Reclamation lands. In addition, Applicant shall comply with the Memorandum of Agreement executed by Applicant and Reclamation.
51. Applicant shall obtain a right-of-way grant from BLM for the rail line to cross any public lands administered by BLM prior to initiating any project-related construction activities

on public lands. Applicant shall comply with the terms and conditions required of this right-of-way grant, in addition to the mitigation imposed by the Board, for activities on public lands administered by BLM.

52. No USFWS lands, such as waterfowl production areas and wetland easements, will be crossed by the project-related construction or reconstruction. However, a new rail yard facility under Alternative C could be located across a wetlands easement. In that event, Applicant shall acquire and provide to the USFWS additional wetlands easement(s), replacing in kind, function, and value, and subject to USFWS approval and necessary environmental reviews and permitting, the wetland easement(s) lost from project-related rail yard construction.

State Lands

53. If any project-related construction activities, including location of new rail line, staging or laydown yards, or access points, either temporary or permanent, are required on State lands, Applicant shall consult with the appropriate State personnel prior to conducting these activities. To the extent practicable, Applicant shall avoid use of public lands as part of project development.
54. Applicant shall consult with managers of State lands to determine peak use periods for the State lands that provide for over-night use. Applicant shall attempt to schedule project-related construction activities to avoid these periods, to the extent practical.

Utility Corridors

55. Applicant shall make reasonable efforts to identify all utilities that are reasonably expected to be materially affected by the proposed construction within its existing right-of-way or that cross its existing right-of-way. Applicant shall notify the owner of each such utility identified prior to project-related construction and reconstruction activities and coordinate with the owner to minimize damage to utilities. Applicant shall also consult with utility owners to design the rail line so that utilities are protected during project-related construction and reconstruction activities and subsequent maintenance and operation of Applicant's rail line.
56. Should such previously unidentified utilities be discovered during project-related construction activities, Applicant shall cease construction, take appropriate action to protect the utility, and contact the utility owner immediately. In the event of damage to any utility during project-related construction, reconstruction, or operation, Applicant shall contact the utility owner immediately and take appropriate remedial action.
57. Applicant shall make reasonable efforts to protect existing drainage tile systems present in agricultural lands adjacent to the rail line right-of-way during project-related construction and reconstruction activities. Applicant shall repair, as quickly as

practicable, any damage to these systems due to project-related rail construction and reconstruction activities.

58. Applicant shall dispose of all non-recyclable and non-reusable solid waste generated during project-related construction and reconstruction activities in permitted landfills or other disposal sites in accordance with all applicable Federal, State, and local regulations.

WATER RESOURCES

59. Applicant shall obtain all Federal permits, including the Clean Water Act Section 404 and Rivers and Harbors Act of 1899 Section 10 permits, required by the U.S. Army Corps of Engineers, for project-related alteration or encroachment of wetlands, ponds, lakes, streams, or rivers, including the Missouri River, prior to initiation of any project-related construction and reconstruction. Additionally, Applicant shall obtain appropriate permits from the State of Minnesota, including Protected Waters Permits, for impacts to water resources in Minnesota due to project-related construction and reconstruction activities.
60. Applicant shall obtain a National Pollutant Discharge Elimination System (NPDES) permit from each State (Minnesota, South Dakota, Wyoming) affected by project-related construction or reconstruction activities.
61. To minimize sedimentation into streams and waterways, Applicant shall use best management practices, such as silt screens and straw bale dikes, to minimize soil erosion, sedimentation, runoff, and surface instability during project-related construction and reconstruction activities. Applicant shall disturb the smallest area possible around any streams and tributaries, and shall consult with the Natural Resource Conservation Service, Minnesota Department of Natural Resources, South Dakota Department of Game, Fish, and Parks, Minnesota Pollution Control Agency, Wyoming Department of Game and Fish, and the State Departments of Transportation to ensure proper revegetation of disturbed areas as soon as practicable following project-related construction or reconstruction activities.
62. Applicant shall establish staging areas for project-related construction equipment in areas that are not environmentally sensitive in order to control erosion. When project-related construction activities, such as culvert and bridge work, require work in stream beds, Applicant shall conduct these activities, to the extent practicable, during low flow or periods when the stream is dry.
63. When engaging in any project-related construction activities near streams, Applicant shall construct temporary stream crossings as close to a right angle with the stream as possible. Applicant also shall design temporary bridges to span across the ordinary high water elevations of waterways to the extent practical. Following the project-related

construction, Applicant promptly shall remove all temporary construction crossings and restore the area to as close to its original condition as possible.

64. Applicant shall ensure that, when used in its project-related construction activities, cofferdams or check dams consist of native material, sheet pile, sandbags, or other engineered designs matching the local site conditions. All materials used in the construction of cofferdams or check dams shall be completely removed upon completion of construction.
65. Applicant shall establish staging and laydown yards for project-related construction at least 300 feet from wetlands or waterways, if topography permits. If topographic conditions do not permit a 300-foot distance, these areas shall be located no less than 50 feet from the water's edge. Applicant shall not clear any vegetation between the yard area and the waterway or wetlands.
66. Applicant shall inspect all equipment for any oil, gas, diesel, anti-freeze, grease, hydraulic fluid, and other petroleum product leaks. If leaks are found, Applicant shall immediately remove the equipment from the construction zone, and repair or replace it.
67. Applicant shall ensure that all culverts and bridges are clear of debris to avoid potential flooding and stream flow alteration. Applicant shall design all project-related drainage crossing structures to pass a 100 year flood. Applicant shall reconstruct the existing rail line and construct the new rail line in such a way as to maintain current drainage patterns to the extent practicable and not result in new drainage of wetlands. Applicant shall inspect all drainages, bridges, and culverts semi-annually (or more frequently, as seasonal flows dictate) for debris accumulation. Applicant shall promptly remove debris and properly dispose of it in an upland area.
68. To ensure the integrity of the Flood Control Project in Mankato, Minnesota if Alternative M-3, the existing rail corridor alternative through Mankato, is built, Applicant shall coordinate with the U.S. Army Corps of Engineers, the City of Mankato, and other appropriate local agencies in Mankato and obtain any necessary permits to prevent adverse impacts from project-related rail line construction and operation to flood control structures.
69. Applicant shall employ best management practices to control turbidity and disturbance to bottom sediments during project-related construction or rehabilitation of Applicant's bridge over the Missouri River at Pierre, South Dakota.
70. Applicant shall obtain a Bridge Permit from the U.S. Coast Guard for any project-related activities that would result in the extensive modification of Applicant's existing rail bridge over the Missouri River in Pierre, South Dakota or for construction of a new rail bridge over the river.

71. Applicant shall complete project-related construction and reconstruction activities through wetlands, when such wetlands extend outside the rail line right-of-way in continuous segments, in order to minimize both the time required to complete construction and the time land adjacent to wetlands is disturbed.
72. Applicant shall ensure that any herbicides used in right-of-way maintenance to control vegetation are approved by EPA and are applied by licensed individuals who shall limit application to the extent necessary for rail operations. Applicant shall ensure that only herbicides determined by EPA to be acceptable for use around waterways shall be applied within 150 feet of perennial streams, rivers, and wetlands. Herbicides shall be applied so as to prevent or minimize drift off of the right-of-way onto adjacent areas.
73. Applicant shall ensure that any wells that could be affected by project-related construction or reconstruction activities are appropriately protected or capped to prevent well and groundwater contamination. If these wells are located on private land, Applicant shall first secure permission from the landowner before undertaking any such activities. In the event that Applicant does not receive such permission upon reasonable request, it may petition the Board to be relieved of this obligation.
74. Applicant shall ensure that new project-related stream, river, and floodplain crossings are appropriately designed to minimize impacts to community-designed floodways. In those areas where a community-designed floodway does not exist, Applicant shall ensure that new waterway crossing structures are sufficient to pass a 100 year flood without increasing the flood level by more than one-half foot.
75. Applicant shall consult with the Minnesota Department of Natural Resources to design project-related waterway crossing structures to allow passage of fish.
76. Applicant shall prohibit project-related construction vehicles from driving in or crossing streams at other than established crossing points.
77. Applicant shall, to the extent practicable, ensure that any fill placed below the ordinary high water line of wetlands and streams is clean and free of fine materials. Applicant also shall use fill from local sources where practicable. All stream crossing points shall be returned to their pre-construction contours to the extent practicable, and the crossing banks reseeded or replanted with native species immediately following project-related construction.

RECREATION

78. Applicant shall ensure that adequate clearances and access are provided for safe navigation of recreational boats on the Missouri River at the location of any project-

related rehabilitation or construction of Applicant's bridge across the Missouri River at Pierre, South Dakota. Applicant also shall install appropriate warning devices to notify boaters of project-related bridge construction activities and the location of a safe navigation route.

79. If Alternative M-3, the existing rail corridor alternative through Mankato, Minnesota is built, Applicant shall provide appropriate fencing along the rail line in Mankato adjacent to parks, trails, or other recreational areas to provide a safe environment for users of the facilities. Applicant shall consult with the City of Mankato about appropriate fencing design and the possibility of providing landscaping, including vegetative screening.
80. Applicant shall consult with Federal land managers such as the U.S. Forest Service and Bureau of Land Management, and State land managers including the Minnesota Department of Natural Resources, South Dakota Game, Fish and Parks, and Wyoming Game and Fish Department to determine locations where project-related construction and reconstruction activities will result in lost or reduced access to public lands due to temporary road closures or other construction related activities. Applicant shall develop a plan to provide alternative access to these lands during project-related construction and reconstruction activities and operation of unit coal trains to the extent practicable.

AIR QUALITY

81. Applicant shall continue to consult with the Air Quality Working Group, consisting of agencies with appropriate technical expertise which was established for this project, to develop a mutually satisfactory approach to minimize the impacts of regional haze on Class I airsheds resulting from the locomotive emissions of Applicant's PRB coal trains. If no mutually satisfactory approach is developed within one year of the effective date of the Board's decision giving final approval to the PRB Expansion Project, then Applicant shall fund 50 percent of the cost of a mediator to assist the parties to reach an agreement. However, the parties jointly may seek more time to continue their negotiations without a mediator if they believe that would be more productive. If the Working Group and Applicant jointly decide that further consultations and/or mediation would be fruitless, then the Working Group may be disbanded. Applicant shall apprise the Board of the status of the ongoing Working Group consultations in the quarterly reports required by Condition 147, and shall also notify the Board if a Memorandum of Agreement is executed, or if the Working Group is disbanded.
82. Applicant shall meet the Environmental Protection Agency emissions standards for diesel-electric railroad locomotives (40 CFR Part 92) when purchasing and rebuilding locomotives for movement of unit coal trains throughout its system.
83. Applicant, to the extent practicable, shall adopt fuel saving practices, such as throttle modulation, dynamic braking, increased use of coasting trains, isolation of unneeded

horsepower, and shutting down locomotives when not in use for more than an hour when temperatures are above 40 degrees, to reduce overall emissions during project-related operations.

84. To minimize fugitive dust emissions created during project-related construction and reconstruction activities, Applicant shall implement appropriate fugitive dust suppression controls, such as spraying water, applying a magnesium chloride treatment, tarp covers for haul vehicles, installation of wind barriers, or other State-approved measures. Applicant shall also regularly operate water trucks on haul roads to reduce dust.
85. Applicant shall obtain appropriate burning permits from the applicable State and local agencies, including the Minnesota Department of Natural Resources, Division of Forestry, South Dakota Department of Environment and Natural Resources, and Wyoming Department of Environmental Quality, prior to any project-related open burning. Open burning shall only be used by Applicant if no other reasonable means of solid waste disposal is available. Applicant also shall notify local fire departments at least four hours before any project-related open burning and obtain verbal or written permission from the fire departments prior to open burning activities.

NOISE AND VIBRATION

86. Applicant shall consult with affected communities regarding Applicant's project-related construction schedule, including the hours during which construction takes place, to minimize, to the extent practicable, construction-related noise disturbances in residential areas.
87. Applicant shall ensure that curves are lubricated where doing so would reduce noise for residential or other noise sensitive receptors.
88. Prior to initiating project-related construction activities, Applicant shall develop a Construction Noise and Vibration Control Plan (the Plan) to minimize construction noise and vibration within the communities along the rail line. Applicant shall designate a noise control officer/engineer to develop the Plan, whose qualifications shall include at least five years' experience with major construction noise projects, and board certification membership with the Institute of Noise Control Engineering or registration as a Professional Engineer in Mechanical Engineering or Civil Engineering.
89. Applicant shall comply with FRA regulations (49 CFR Part 210) establishing decibel limits for train operations.
90. Applicant shall consult with interested communities along its new and existing rail line to identify measures to eliminate the need to sound train horns consistent with FRA standards.

91. Applicant shall regularly inspect rail car wheels to maintain wheels in good working order and minimize the development of wheel flats (areas where a round wheel becomes no longer round but has a flat section, leading to a clanking sound when a rail car passes). Prior to moving PRB coal trains, Applicant shall inspect new and existing rail for rough surfaces and grind these surfaces to provide a smooth rail surface during project-related rail operations.
92. As proposed by Applicant, continuously welded rail shall be used, unless it is impractical, in Applicant's project related construction and reconstruction activities.
93. Applicant shall maintain project-related construction and maintenance vehicles in good working order with properly functioning mufflers to control noise.
94. Because rail switches contain a break in the continuously welded rail which can often create additional noise and ground vibration as trains pass over or through the switch, during project-related rehabilitation of the existing rail line, Applicant shall remove or consolidate switches determined to no longer be needed.
95. Applicant shall mitigate train wayside noise (locomotive engine and wheel/rail noise) for the noise-sensitive receptors along Applicant's existing rail line and project-related new rail line construction that fall within the 70 dBA Ldn noise contour for wayside noise, as specified below. With the written concurrence of the responsible local government(s), Applicant shall mitigate wayside noise with building sound insulating treatments, including insulated windows. The design goal for noise mitigation shall be a 10 dBA noise reduction. The minimum noise reduction achieved shall be 5 dBA.

The receptors that will require mitigation will depend on the anticipated tonnage levels of coal to be moved (20 million tons, 50 million tons, or 100 million tons annually). As coal train operations increase, the 70 dBA Ldn noise contour will widen. Therefore, within 2 years of transporting 20, 50, or 100 million tons of coal annually, Applicant shall certify to the Board in its quarterly reports required by Condition 147 that it has met this condition for all affected receptors that fall within the 70 dBA noise contour for the level of coal then being moved.

Noise barrier performance shall be determined in accordance with ANSI S12.8-1987, *American National Standard Methods for Determination of Insertion Loss of Outdoor Noise Barriers*. Sound insulation performance shall be determined in accordance with ASTM 966-90, *Standard Guide for Field Measurements of Airborne Sound Insulation of Building Facades and Facade Elements*. This condition shall not apply to those communities or other entities that have executed Negotiated Agreements with Applicant.

Should noise mitigation be required at locations identified as containing structures that are potentially eligible for listing on the National Register of Historic Places, Applicant shall consult with the appropriate State Historic Preservation Officer to assess effects and implement appropriate mitigation measures.

The total number of noise sensitive receptors that meet the wayside noise mitigation criteria at the three applicable tonnage levels are listed below:

Table 12-1			
Number of Noise Sensitive Receptors that Meet Wayside Noise Mitigation Criteria			
County^a Community^b	Total Number of Receptors - 20 million tons	Total Number of Receptors - 50 million tons^c	Total Number of Receptors - 100 million tons^c
MINNESOTA			
Winona	2	5	1
Olmsted	11	0	1
Chester	0	1	1
Rochester	15	29	44
Dodge	3	0	4
Steele	0	0	6
Meriden	2	4	5
Waseca	1	0	2
Smiths Mill	0	1	1
Blue Earth - Existing Rail Line	1	4	0
Smiths Mill	1	2	1
Judson	0	2	4
Cambria	0	0	3
Blue Earth - Alternative M-2	13	9	9
Blue Earth - Alternative M-3	1	5	3
Eagle Lake	3	4	11
Mankato	31	7	40
Brown	0	4	6
Essig	0	0	1
Redwood	0	0	0

Table 12-1			
Number of Noise Sensitive Receptors that Meet Wayside Noise Mitigation Criteria			
County^a Community^b	Total Number of Receptors - 20 million tons	Total Number of Receptors - 50 million tons^c	Total Number of Receptors - 100 million tons^c
Lyon	0	0	1
Burchard	0	0	0
Lincoln	0	0	1
Verdi	0	0	2
SOUTH DAKOTA			
Brookings	0	7	22
Kingsbury	0	0	0
Manchester	0	0	2
Beadle	0	0	1
Hand	0	2	0
Vayland	0	0	0
Hyde	0	0	1
Holabird	0	0	0
Hughes	0	0	1
Canning	0	0	0
Alto	0	0	0
Pierre	0	13	29
Stanley	0	1	0
Wendte	0	0	2
Jones	0	0	0
Capa	0	0	0
Haakon	0	2	0
Nowlin	0	0	0
Powell	0	0	0
Jackson	0	0	0
Pennington	0	1	0
Custer	0	0	0

Table 12-1 Number of Noise Sensitive Receptors that Meet Wayside Noise Mitigation Criteria			
County^a Community^b	Total Number of Receptors - 20 million tons	Total Number of Receptors - 50 million tons^c	Total Number of Receptors - 100 million tons^c
Fall River	0	1	0
Smithwick	0	0	0
Heppner	0	0	0
Dudley	0	1	1
Marietta	0	1	0
WYOMING			
Niobrara	0	0	0
Weston	0	0	0
Campbell	0	0	0
Converse	0	0	0
TOTAL	36^d	81^e	143^f
^a	Represents number of noise sensitive receptors located outside the limits of established communities within the county.		
^b	Represents number of noise sensitive receptors located within the limits of the established community for which the receptor(s) are listed.		
^c	Represents number of noise sensitive receptors eligible for mitigation and not mitigated under previous levels of rail operations.		
^d	Add 13 noise sensitive receptors for Alternative M-2. Add 35 noise sensitive receptors for Alternative M-3.		
^e	Add 9 noise sensitive receptors for Alternative M-2. Add 16 noise sensitive receptors for Alternative M-3.		
^f	Add 9 noise sensitive receptors for Alternative M-2. Add 54 noise sensitive receptors for Alternative M-3.		

96. To minimize noise and vibration, Applicant shall install and properly maintain rail and rail beds according to the AREMA standards and shall regularly maintain locomotives, keeping mufflers in good working order to control noise.

BIOLOGICAL RESOURCES

97. Applicant shall comply with the Biological Assessment that has been prepared under Section 7 of the Endangered Species Act, 16 U.S.C. 1531, and the Biological Opinion prepared by the U.S. Fish and Wildlife Service for this project.

98. Applicant shall develop and implement, in consultation with the U.S. Fish and Wildlife Service, South Dakota Department of Game, Fish and Parks, Wyoming Game and Fish Department, and Minnesota Department of Natural Resources, a habitat restoration plan designed to compensate for the loss of trees, shrubs, and other woody vegetation, prairies, and other important wildlife habitats as a result of construction and reconstruction related to this project. Applicant's plan shall focus in particular on riparian areas or other areas that are not addressed as part of wetland mitigation.
99. Applicant shall conduct a survey for raptor nests, including bald eagles, prior to the initiation of project-related construction activities. Applicant also shall attempt to minimize disturbance to active nests until after active nesting has been completed for the season. Applicant shall consult and coordinate with the applicable State agency (South Dakota Department of Game, Fish and Parks, Wyoming Game and Fish Department, or Minnesota Department of Natural Resources) to determine the appropriate action to compensate for raptor nests removed or destroyed during project-related construction activities.
100. Prior to initiating project-related construction activities, Applicant shall consult with the Natural Resource Conservation Service, local grazing associations, and interested landowners, to develop an adequate plan for controlling noxious weeds. The plan should include an approved list of herbicides.
101. Prior to initiating new rail line construction activities in South Dakota and Wyoming, Applicant shall consult with the South Dakota Department of Game, Fish and Parks, Wyoming Department of Game and Fish, and Tribal wildlife officials to develop mutually acceptable under- and overpass designs and locations to protect wildlife, particularly big game. Considerations for under- and overpass locations should include providing access to wildlife water sources, particularly for big game. Applicant shall develop additional water sources for wildlife to replace those lost, adversely affected, or rendered inaccessible to wildlife due to new rail line construction if suitable alternative sources are not available to wildlife.
102. Prior to initiating new rail line construction activities in South Dakota and Wyoming, Applicant shall coordinate with the South Dakota Department of Game, Fish and Parks, Wyoming Game and Fish Department, and Tribal wildlife officials to develop adequate fencing standards and designs to allow for movement of wildlife, particularly big game, across the right-of-way. Applicant shall encourage the use of these types of fencing when negotiating with landowners on fence installation on private property. (See also Condition 32.)
103. Applicant shall remove carcasses from the rail line right-of-way as part of normal rail line inspection and maintenance activities.

104. Prior to initiation of project-related reconstruction activities in Minnesota and South Dakota, Applicant shall conduct a survey of the existing rail line right-of-way to identify native prairie remnants within the existing right-of-way. To the extent practicable, these areas shall be avoided during project-related reconstruction activities. Applicant also shall coordinate with the Minnesota Department of Natural Resources and the South Dakota Department of Game, Fish and Parks to develop a plan for the re-establishment of prairie vegetation in prairie remnants which cannot be avoided during project-related reconstruction activities. Such a plan should include, as appropriate, the stripping and stockpiling of topsoil for placement in the disturbed area during revegetation and the use of seed previously taken from the area or other local prairie remnants to revegetate disturbed prairie remnants within the existing right-of-way.

CULTURAL RESOURCES

105. Applicant shall provide written or other resources to inform its workers (both temporary and full-time) of the applicable Federal, State, and local requirements for the protection of archaeological resources, graves, other cultural resources, and wildlife (including those concerning threatened and endangered species), as well as the applicable requirements of trespass laws, traffic regulations (such as speed limits and weight restrictions), and regulations pertaining to waste disposal. Applicant's resources shall inform construction workers of the importance of protecting archaeological resources, graves and other cultural resources, and how to recognize and treat these resources. Applicant shall also establish policies to deter casual collection by construction workers of cultural resources.
106. Applicant shall comply with the Programmatic Agreement and Identification Plan that has been developed through the Section 106 consultation process under the National Historic Preservation Act.
107. Applicant shall implement all the mitigation included in the Memorandum of Agreement that has been developed to ensure that the concerns of Native American Tribes related to the proposed project which are outside the Section 106 process under the National Historic Preservation Act are considered and addressed.
108. Prior to initiating project-related construction or rehabilitation of Applicant's bridge over the Missouri River located at Pierre, South Dakota, Applicant shall ensure that the Section 106 process of the National Historic Preservation Act is completed for all archaeological sites and historic structures that would be impacted by the proposed project.

ENVIRONMENTAL JUSTICE

109. Applicant shall consult and coordinate with the Lakota Sioux Tribe to develop a Hazardous Material Emergency Response Plan to account for the special needs of Tribal

members on the Pine Ridge Reservation in South Dakota, particularly those inhabiting Red Shirt, South Dakota. This plan shall include Applicant-sponsored training in hazardous materials response for appropriate Tribal personnel with emphasis on methods to protect the Cheyenne River, an important resource to the Pine Ridge Reservation, in the event of a spill of petroleum products such as oil or diesel fuel, or other hazardous materials.

110. Prior to initiation of project-related construction or reconstruction activities, Applicant shall establish a Tribal Liaison to consult with interested and affected Tribes, develop cooperative solutions to the Tribes' concerns, discuss possible job opportunities for Tribal members, be available for Tribal meetings, conduct public outreach to educate the public on the importance of archaeological and paleontological resources to Native American Tribes, and conduct periodic Tribal outreach. This Tribal Liaison shall have access to Applicant's upper management. Applicant shall provide the name and phone number of the Tribal Liaison to Tribal officials including Tribal chairmen, Tribal Historic Preservation Officers, and other Tribal designees.

GEOLOGY AND SOILS

111. Applicant shall limit ground disturbance only to the areas necessary for project-related construction and reconstruction activities.
112. During project-related earthmoving activities, Applicant shall remove topsoil and segregate it from subsoil. Applicant shall also stockpile topsoil for later application during reclamation of the right-of-way. Applicant shall place the topsoil stockpiles in areas that would minimize the potential for erosion, and use appropriate erosion control measures around all stockpiles to prevent erosion.
113. Applicant shall commence reclamation of disturbed areas as soon as practicable after project-related construction ends along a particular stretch of rail line. The goal of reclamation shall be the rapid and permanent reestablishment of ground cover on disturbed areas. Applicant shall attempt to reclaim disturbed areas prior to cessation of project-related construction activities for the winter to avoid disturbed soils being subject to erosion throughout the winter. If weather or season precludes the prompt reestablishment of vegetation, Applicant shall use measures such as mulching, netting, or ground blankets to prevent erosion until reseeding can be completed.
114. Prior to initiating project-related construction activities, Applicant shall consult with the local offices of the Natural Resources Conservation Service, State Departments of Natural Resources, Fish and Game, and State Departments of Transportation, to develop an appropriate plan for restoring and revegetating the disturbed areas (including appropriate greenstrip seed mix specifications). Applicant shall monitor reclaimed areas for three years following the revegetation. For those areas where efforts to establish

vegetative cover have been unsuccessful after one year, Applicant shall reseed annually until vegetative cover is established.

115. Applicant shall take reasonable steps to ensure that fill material used in project-related construction activities is free of contaminants.
116. Applicant shall design and construct the new rail line so as to consider local geologic potentials for slumping and landslides and develop and implement adequate measures to minimize the potential for these to occur.

PALEONTOLOGICAL RESOURCES

117. Prior to engaging in any project-related construction across Federal lands, Applicant shall conduct testing within the proposed right-of-way where there is a potential for paleontological resources of Class 3 or higher. This testing shall be done to the depth below ground surface at which the rail line is anticipated to be constructed. Prior to initiating project-related construction activities in the areas that warrant testing, Applicant shall prepare a paleontological resources report identifying any resources encountered, as well as the strata most likely to contain significant paleontological resources. Applicant shall submit the report to the Board and the appropriate Federal land managing agency. After submitting the report, Applicant shall consult with the appropriate Federal land managing agency to develop appropriate measures to minimize damage to paleontological resources during project-related construction. These measures may include a requirement that the Applicant retain a paleontologist to be present during earthmoving activities affecting the strata most likely to contain significant fossil resources.
118. If paleontological resources are encountered during project-related construction activities on Federal lands, Applicant shall immediately cease construction activities, inform the appropriate Federal land managing agency of the identified resource, and arrange for evaluation of the resource and determination of how to protect the resource by a qualified paleontologist. The paleontologist may be employed by the Federal land managing agency, the relevant State Historic Preservation Office, or may be retained by Applicant. Any paleontological resources recovered from project-related construction activities across Federal lands shall remain the property of the United States Government.
119. If significant paleontological resources are encountered during project-related construction activities on private lands, construction crews shall notify the appropriate agencies and take appropriate actions at the work site to protect paleontological resources.

NEGOTIATED AGREEMENTS

120. Applicant shall comply with the terms of all Negotiated Agreements developed with local communities regarding environmental issues associated with the PRB Expansion Project. The following list provides the Negotiated Agreements received by the Board to-date:

Table 12-2 Negotiated Agreements			
Minnesota			
Balaton	Byron	Claremont	Cobden
Dodge Center	Dover	Eyota	Garvin
Janesville	Kasson	Lake Benton	Lamberton
Lewiston	Minnesota City	New Ulm	Owatonna
Revere	Sanborn	Sleepy Eye	Springfield
Stockton	St. Charles	Tracy	Tyler
Utica	Walnut Grove	Waseca	
South Dakota			
Arlington	Aurora	Blunt	Cavour
Cottonwood	Desmet	Elkton	Ft. Pierre
Harrold	Hetland	Highmore	Huron
Iroquois	Lake Preston	Midland	Miller
Phillip	Quinn	Ree Heights	St. Lawrence
Volga	Wall	Wessington	Wolsey

SITE-SPECIFIC MITIGATION MEASURES

Minnesota

121. Applicant shall install two grade separated crossings in Rochester, Minnesota, at Broadway Avenue, East Circle Drive, West Silver Lake Drive/2nd Avenue NE, 6th Avenue, or another mutually acceptable location. Applicant shall consult with FRA, Federal Highway Administration (FHWA), appropriate State and local transportation authorities, and the City of Rochester on the design (for example, whether the road would

go over or under the rail line), location, and funding of these grade separations. Applicant shall complete installation of one grade separated crossing prior to transporting more than 20 million tons of coal annually through Rochester for more than one year. Applicant shall complete installation of a second grade separated crossing prior to transporting more than 50 million tons of coal annually through Rochester for more than one year. These grade separated crossings should be designed and located to facilitate the movement of emergency vehicles to and from medical facilities providing emergency services in Rochester, including St. Mary's Hospital and Methodist Hospital, which are both facilities of the Mayo Clinic. During the Board's oversight period, Applicant shall apprise SEA of the progress being made toward implementation of this condition in the quarterly reports required by Condition 147.

122. Prior to initiation of project-related reconstruction activities in Rochester, Minnesota, Applicant's upper management shall meet with representatives of the Mayo Clinic to consult and coordinate with the Mayo Clinic on how best to minimize project-related impacts on the Clinic. Applicant's upper management shall continue to meet with Clinic representatives on a regular basis during the Board's oversight period.
123. Applicant, prior to transporting 50 million tons of coal annually through Rochester, Minnesota, shall coordinate with the City of Rochester, Olmsted County, Minnesota Department of Transportation, and FRA to develop additional grade-crossing protection devices at the existing grade crossing of Broadway Avenue. This is necessary because the accident frequency at this crossing would exceed the Board's criteria of significance, even with the protection proposed in DM&E's Grade Crossing Mitigation Plan, which is discussed in Condition 1.
124. In determining the final design and location of sidings constructed as part of project-related rail line reconstruction, Applicant shall consider the feasibility of shifting the location of the siding proposed in the area of Minneopa State Park in Minnesota to avoid the park. If Applicant determines that it is necessary to build a siding in the park, Applicant shall consider the feasibility of constructing the siding on the south of the tracks on the eastern end, to avoid channel changes in the Minnesota River, or on the north side of the existing track on the west end, to minimize wetland impacts. Applicant shall report the results of its considerations to the Board as part of its reporting under Condition 147.
125. In determining the final design and location of sidings constructed as part of project-related rail line reconstruction, Applicant shall consider locating the siding proposed in the area between Sanborn and Lamberton in Redwood County, Minnesota, on the north side of the existing rail line to avoid impacting the well-vegetated, intact riverbanks on the south side of the existing line. Applicant shall report the results of its considerations to the Board as part of its reporting under Condition 147.

126. If Applicant determines that the bridge over the access road to Lake Benton, Lincoln County, Minnesota requires reconstruction to permit the movement of unit coal trains, Applicant shall consult with the Minnesota DOT to consider ways to design and construct the bridge so as to ensure the safe passage of emergency vehicles.
127. Applicant shall coordinate with the City of Courtland, Minnesota to ensure protection of the city's sewer line during project-related reconstruction of the existing rail line.
128. If Alternative M-2, the Mankato, Minnesota southern route, is built, Applicant shall consult with Blue Earth County, Minnesota, to explore the feasibility and cost effectiveness of constructing any new rail line on a trestle or bridge rather than fill in the Blue Earth River valley.
129. If Alternative M-2, the Mankato, Minnesota southern route, is built, Applicant, prior to transporting 50 million tons of coal annually over Alternative M-2, shall coordinate with Blue Earth County, Minnesota DOT and the FRA to develop additional grade-crossing protection devices at the proposed crossing of Township Road 194. This is necessary because the accident frequency at this crossing would exceed the Board's criteria of significance, even with the protection proposed in DM&E's Grade Crossing Mitigation Plan, which is discussed in Condition 1.
130. If Alternative M-2, the Mankato, Minnesota southern route, is built, Applicant shall coordinate with Mount Kato Ski Area to minimize, to the extent practicable, the potential impacts of construction of Alternative M-2 across ski area property.
131. Applicant shall consider installation of a pedestrian and bike underpass of the Red Jacket Trail in Blue Earth County, south of Mankato, Minnesota, if Alternative M-2, the Mankato, Minnesota southern route, is built. At a minimum, Applicant shall install and maintain warning signs clearly advising the public to proceed with caution due to the possible presence of trains.
132. If Alternative M-2, the Mankato, Minnesota southern route, is built, Applicant shall attempt to avoid the holding pond for County Highway 90 at Saddle Club, Blue Earth County, Minnesota. If the holding pond cannot be avoided, Applicant shall consult with Blue Earth County regarding its replacement and be responsible for the costs associated with replacing the holding pond.
133. If Alternative M-2, the Mankato, Minnesota southern route is built, Applicant shall consult with Blue Earth County, Minnesota regarding whether the portion of Alternative M-2 west of Mankato, Minnesota can be constructed so as to avoid or minimize impacts to the proposed Minneopa Trail.

134. Applicant shall work with the City of Mankato, Minnesota to determine if additional access can be developed to Land of Memories Park. Should a mutually acceptable plan for additional access be developed, Applicant shall work with the City to help the City secure funding for the project.
135. If Alternative M-3, the existing rail corridor alternative through Mankato, is built and Applicant determines that it must rebuild the existing bridge over the Blue Earth River to permit operation of unit coal trains, Applicant shall consider incorporating a pedestrian/bicycle crossing as part of the new rail bridge design.
136. If Alternative M-3, the existing rail corridor alternative through Mankato, Minnesota is built, for the pedestrian crossings of the Sakatah Singing Hills State Trail in Blue Earth County, Applicant shall install and maintain warning signs clearly advising the public to proceed with caution due to the possible presence of trains.
137. Applicant shall consider locating the Middle East Staging and Marshaling Yard near New Ulm, Minnesota in such a way to allow residents of Shag Road access to Shag Road from both ends of the rail yard. Applicant shall report the results of its considerations to the Board as part of its reporting under Condition 147.

South Dakota

138. Applicant shall install a grade separated crossing in Pierre, South Dakota, at Sioux Avenue or another mutually acceptable location, to be completed within one year after DM&E transports more than 50 million tons of coal through Pierre annually for more than one year. Applicant shall consult with the FRA, FHWA, appropriate State and local transportation authorities, and the City of Pierre on the design (for example, whether the road would go over or under the rail line), location, and funding of this separation. Applicant shall apprise SEA of the progress being made toward implementation of this condition in the quarterly reports required by Condition 147.
139. Applicant shall consider improving the existing rail line underpass off of Park Street in Fort Pierre, South Dakota to allow a paved crossing suitable for passage of emergency vehicles as part of any project-related reconstruction or replacement of the existing Bad River Bridge.
140. Applicant shall consult with the City of Wall, South Dakota and the South Dakota Department of Transportation to consider whether the proposed new rail line west of Wall can be designed and constructed to allow the expansion of the Wall Municipal Airport, as currently proposed.
141. Applicant shall consult with the South Dakota Department of Transportation to consider whether the grade separation of US Highway 18 east of Edgemont, South Dakota

proposed in Applicant's Grade Crossing Mitigation Plan can be designed so as to accommodate future expansion of this highway to four lanes.

142. If Applicant determines that the bridge over 6th Avenue in Brookings, South Dakota, requires reconstruction to permit movement of unit coal trains, Applicant shall coordinate with the City of Brookings and the South Dakota Department of Transportation to explore whether the bridge can be designed and constructed to permit the passage of all emergency vehicles.
143. For the pedestrian crossings at 12th Avenue, 6th Avenue, and the Interstate 29 pedestrian and bike trail in Brookings, South Dakota, Applicant shall install and maintain warning signs clearly advising the public to proceed with caution due to the possible presence of trains.

Wyoming

144. Applicant, prior to transporting 50 million tons of coal annually over Alternative C, shall coordinate with Niobrara County, Wyoming Department of Transportation (Wyoming DOT), and FRA to develop additional grade-crossing protection devices at the proposed crossing of U.S. Highway 85. Additionally, Applicant, prior to transporting 50 million tons of coal annually over Alternative C, shall coordinate with Campbell County, Wyoming DOT and the FRA to develop additional grade-crossing protection devices at the proposed crossing of Bishop Road, and shall do the same for State Highway 450 prior to transporting 100 million tons of coal annually. This is necessary because the accident frequency at these crossings would exceed the Board's criteria of significance, even with the protection proposed in DM&E's Grade Crossing Mitigation Plan, which is discussed in Condition 1.

MONITORING AND ENFORCEMENT

145. If there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, or if there are unanticipated environmental problems that arise during the oversight period, the Board will take appropriate action. Any community or other interested party may seek redress by filing a petition to demonstrate material change or unanticipated problems during the environmental oversight period. The Board may review the continuing applicability of its final mitigation and impose additional or modified conditions if warranted.
146. Applicant shall retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until Applicant has completed project-related construction and reconstruction activities, as well as during the environmental oversight period.

147. To ensure Applicant's compliance with the environmental mitigation conditions imposed by the Board, Applicant shall submit to SEA reports on a quarterly basis for the duration of the oversight period, documenting the status of its mitigation implementation for each condition. The oversight period in this case shall be the first two years of project-related operations.