5.0 REVIEW OF PREVIOUS STUDIES

Predictions relative to potential future air quality impacts were not presented in the Coal Development Status Check (BLM 1996). A previous study conducted for the PRB Oil and Gas Final EIS (BLM 2003) showed no expected exceedances of ambient air quality standards; however, there were some identified impacts of concern on visibility in Class I areas and potential impacts of concern on PM_{10} levels within the Wyoming PRB study area. The air quality modeling results for the PRB Coal Review also do not show any exceedances of the ambient air quality standards at the sensitive receptors. This study also evaluated development-related impacts on PM_{10} concentrations and on visibility at Class I and sensitive areas (see Sections 4.4 and 4.5, respectively, of this report).

It is useful to compare the findings of the Montana Statewide Oil and Gas Environmental Impact Statement (BLM 2003) with the results of this analysis. The most relevant comparisons are with the "no-action" alternative cumulative impact analyses, which would essentially evaluate the impacts of other operations on the similar resources. The "no-action" alternative also identified cases where there were potential exceedances of the 24-hour PM_{10} from the cumulative impact analysis, near the mines and on the Northern Cheyenne Indian Reservation. Using a criterion of a 10 percent change in extinction (1 deciview) for this alternative, the EIS also found potential visibility impacts at 10 of the 17 Class I areas that were evaluated in that study. The study specifically identified impacts on visibility at the Northern Cheyenne Indian Reservation, finding that there would be up to 42 annual occurrences of 24-hour impacts greater than 1 deciview. For the Badlands Wilderness Area, the impact was up to 25 annually with impacts greater than 1 deciview. On the Crow Indian Reservation, comparable evaluations would lead to up to 69 days with impacts greater than 1 deciview. Thus the findings for this coal study are comparable to the referenced Montana Statewide EIS, although the frequency of occurrence of detectable impacts is predicted to be greater under this study than under the Montana study.