

few hundred feet closer to the agricultural fields. The only agricultural activity that could likely conflict with the proposed transmission lines is aerial crop dusting. Since the SDG&E transmission line is already present, it is reasonable to assume that experienced crop dusters are aware of it and that it does not substantially interfere with their activities. There have been no known incidents between crop dusting operations and the SDG&E transmission line. The proposed project is expected to be compatible with agricultural operations.

4.2 Air Quality

This section discusses the impacts arising from construction of the subject transmission lines in the U.S. and impacts in the U.S. caused by the pollutant emissions transported to the U.S. from the Mexican power plants supplying power to the proposed transmission lines.

4.2.1 Impacts from Transmission Line Construction

The construction period for the BCP and SER transmission lines would be from December 2001 through April 2002, taking into account the BLM's administration of the flat-tailed horned lizard protection program. Construction of the transmission lines would involve setting foundations, which would require the movement of equipment along the route, as well as the placement of the steel lattice towers by helicopter. The primary equipment used in setting foundations would be cement trucks, pick-up trucks, and small construction equipment such as backhoes and skip loaders for excavation.

The amount of fugitive dust generated by these sources depends upon several factors including the number of wheels, vehicle speed, and soil moisture. However, the dust generated by entrainment on vehicle wheels is typically temporary in nature and settles in the immediate vicinity. Such fugitive dust emissions would not materially affect ambient PM₁₀ levels in the project region. Water sprayed from truck-mounted equipment would be used sparingly for dust control at access roads, work areas, and when helicopters are in use at tower sites. Any impacts would also be temporary in nature.

The emission factor for estimating fugitive PM₁₀ from unpaved roadways is based on an empirical equation that includes the following variables: silt content of the parent soil, the average vehicular weight in tons, and surface material moisture under natural conditions. The emission factor yielded is in pounds of PM₁₀ per vehicle-mile traveled (VMT). The estimated emissions for vehicular travel along the unpaved existing right-of-way during transmission tower construction includes generic assumptions for these variables, including an average soil silt loading of 23 percent, average vehicle weight of 2.2 tons, and surface soil moisture during construction of 0.2 percent (Environmental Protection Agency 2001). The number of days with measurable rain (greater than 0.01 inch) is also taken into account and the estimate reflects that construction would take place during the

time of year during which precipitation in the region generally takes place. Using AP-42 Section 13.2.2, Equation 1, the estimated emission factor is 2.15 pounds of PM₁₀ per VMT.

It is estimated that 18 round trips per day during the first two months of construction, 8 round trips per day during the next month, and 5 round trips per day during the last two months of construction will occur (see Section 4.9.3, below). Assuming that SR-98 is the take-off point for traffic to the work site and that the maximum distance from I-98 to the construction (to the north and south) is three miles, the vehicle miles traveled would be 54 VMT, 24 VMT, and 15 VMT. Therefore, PM₁₀ emissions from vehicular traffic to and from the construction site would be 116.1 pounds (lb.) of PM₁₀ per day for the first two months (54 VMT × 2.15 PM₁₀/VMT), 51.4 lb. of PM₁₀ per day for the next month, and 32.3 lb. of PM₁₀ per day for the following two months of construction.

Construction equipment, as well as vehicle traffic associated with the movement of construction workers to and from the site, would also cause air emissions resulting from the combustion of fuel. However, the number of construction equipment vehicles to be used on site and the relatively small number of total construction workers commuting to and from the general project site is not expected to result in a substantial impact on air quality. Any air quality impacts associated with this vehicular traffic would also be temporary in nature.

The tower placement would be performed over a two- to three-week period. The towers would be picked up from the lay-down area in Mexico and placed at each location by helicopter. The helicopter movement would cause some dust to be generated by downwash from the rotor blades. Such dust generation is similar to that from wind erosion and would be expected to cause entrainment of the loose surface material. The amount of dust generated is expected to be small and would impact only the localized area near the tower base. The project area is mostly uninhabited desert, and no sensitive receptors are present. If necessary to control dust, small quantities of water would be sprayed in the area surrounding the tower locations as mitigation. However, application of water could encourage non-native invasive plant species to grow and would be used minimally.

The estimated fugitive PM₁₀ emissions from pad construction are conservatively estimated to be at approximately 26.4 pounds of PM₁₀ per acre per day (South Coast Air Quality Management District 1993). The disturbed area for each pad is expected to be less than 0.25 acres in area, and therefore during the construction period the estimated emissions would be about 6.6 pounds per day or less. For the helicopter operations delivering the preconstructed towers, an emission factor of 21.3 pounds of fugitive PM₁₀ per hour may be assumed (South Coast Air Quality Management District 1993). It is estimated that helicopter operations will last a maximum of three hours total per day. Thus, maximum fugitive dust emissions from helicopter operations would be 63.9 lb.

PM₁₀ per day. Maximum fugitive dust emissions for the project site are therefore estimated to be 186 lb. PM₁₀ per day, decreasing to 121.9 lb. PM₁₀ per day and then to 102.8 lb. PM₁₀ per day.

4.2.2 Impacts from Transmission Line Operation

The newly installed transmission lines would require periodic maintenance of the transmission towers, insulators, and conductors. Operations and maintenance (O&M) would involve operators driving to the appropriate towers and performing the tasks required. This would generate additional traffic in the area, but should not be noticeable due to the existing traffic conditions generated mostly by the U.S. Border Patrol. Any increases in PM₁₀ generated by operations and maintenance procedures would be negligible.

4.2.3 Conformity Review

Section 176(c) of the Clean Air Act requires that federal actions conform to the appropriate State Implementation Plan (SIP). The final rule for “Determining Conformity of Federal Actions to State or Federal Implementation Plans” was promulgated by the U.S. EPA on November 30, 1993 (58 FR 63214), and took effect on January 31, 1994 (40 CFR Parts 6, 51, and 93). This rule established the conformity criteria and procedures necessary to ensure that federal actions conform to the SIP and meet the provisions of the Clean Air Act. In general, this rule ensures that all criteria air pollutant emissions and volatile organic compounds are specifically identified and accounted for in the SIP’s attainment or maintenance demonstration and conform to a SIP’s purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards. If the action would be undertaken in a nonattainment or maintenance area, the provisions of the final rule for conformity apply.

The proposed action would be within an ozone and PM₁₀ nonattainment area in Imperial County. However, actions are exempted when the totals of direct and indirect emissions are below specified emissions levels [40 CFR §51.853(b)1]. The applicable level for PM₁₀ is 100 tons per year.

As illustrated in the preceding subsections 4.2.1 and 4.2.2, PM₁₀ emissions are considered to be the principal emissions from the construction and maintenance of the transmission lines in Imperial County, California, and total approximately nine tons in the year of construction, and much less in subsequent years for maintenance thereafter—totals that are considerably less than the specified level of 100 tons per year.

Additionally, the provisions of the final rule do not apply in a nonattainment area if the emissions of concern are less than 10 percent of this area’s total emissions [40 CFR