reduce other hydrocarbons caused by incomplete combustion. These hydrocarbons combine with oxygen to form water and CO_2. For effective reduction of CO and hydrocarbons, the flue gas must be lean (i.e., have excess oxygen) to promote the reactions.

2.4 MITIGATION MEASURES

Under this alternative, DOE and BLM grant one or both Presidential permits and corresponding ROWs to authorize transmission lines whose developers would employ off-site mitigative measures to minimize environmental impacts in the United States. The mitigation measures addressed under this alternative pertain only to offsets of air emissions from power plant operation. DOE contacted the Imperial County Air Pollution Control Office and the Border Power Plant Working Group to obtain suggestions for off-site mitigation measures that could be evaluated under this alternative (Russell 2004; Pioriez 2004a,b,c; Pentecost and Picel 2004; Powers 2004). Additional mitigation measures to replace water reductions were not analyzed because all available water in California is committed to other uses (Colorado River Board of California 2000). Also, the Imperial Irrigation District (IID), the state agency that is presently addressing water use issues in the Salton Sea Watershed, currently has a monitoring and mitigation program to respond to such issues.

For air quality, the mitigation measures can be evaluated on a per-unit or individual project basis. The evaluation of impacts includes examples of reductions in PM_{10} and NO_x emissions that could occur as a result of updating engines in agricultural and transportation equipment and use of more efficient, newer automobiles. These examples could be assembled into a program that would mitigate impacts from emissions from the developers' power plants. The EIS evaluates possible elements of such a program, but does not specify combinations of elements.

The following mitigation measures identified by the Imperial County Air Pollution Control Office are also considered under this alternative. None of the measures, individually or collectively, would be able to offset the total quantities of PM_{10} or gaseous emissions produced by the power plants. However, implementation of one or more of these measures would serve to improve air quality in Imperial County. Later sections describe potential offsets in the Mexicali region.

- Paving of Roads: The Imperial County Public Works Director provided the Imperial County Air Pollution Control Office with a list of about 50 road segments totaling 22 mi (37 km) that could be paved to reduce fugitive dust emissions.

- Retrofitting of Emission Controls on IID Power Plants: The Imperial County Air Pollution Control Office suggested that SCR installation on IID steam plant Unit 3 and the peaker plants would reduce NO_x emissions in the project area.

- Enhance the Use of Compressed Natural Gas in Motorized Vehicles: Four projects were identified as follows: (1) provide funding to maintain the El Centro Compressed Natural Gas refueling facility located at Commercial and Fairfield Streets; (2) provide funding for a compressed natural gas fast-fill facility to be constructed at the Calexico Unified School District; (3) acquire land in Brawley, California, for construction of a compressed natural gas facility; and (4) replace or update engines for the current fleet of ten 40-ft-long (12-m-long) Imperial Valley transit buses and 5 smaller buses.

- Controlling Imperial Airport Dust: Fugitive dust from natural windstorms and from aircraft (particularly from helicopter landings) occurs frequently at the airport.

- Retrofitting of Diesel Engines for Off-Road Heavy-Duty Vehicles: Diesel engines of off-road vehicle equipment used in agriculture, earthmoving, or construction would be updated to reduce particulate and gaseous emissions.

Several other mitigation measures could be implemented in the Mexicali region that could serve to improve regional air quality. These include a program to replace older automobiles and buses in the Mexicali area with a newer, less polluting, fleet; reduction of fugitive dust through road paving; and reduction of emissions from brick kilns by converting the fuel used in firing the kilns to natural gas.

2.5 COMPARISON OF ALTERNATIVES

A comparison of the impacts resulting from each of the four alternatives is provided in Table 2.5-1. The impacts are summarized by resource area (e.g., water resources) and its corresponding section number in this report.