





**Energy Answers Arecibo, LLC** 

**Environmental Justice Evaluation** 

October 2011

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- B Supplemental Risk Assessment
- C Target Organ Specific HI Calculations for Fisher (child)
- D Public Outreach and Agency Support



- Arecibo-Pueblo
- Arrozal
- Carreras
- Domingo Ruiz
- Esperenza
- Hato Viejo
- Islote
- Miraflores
- Rio Arriba
- Sabana Hoyos
- Tanama

#### 4.2. Environmental Load Profile (step 4)

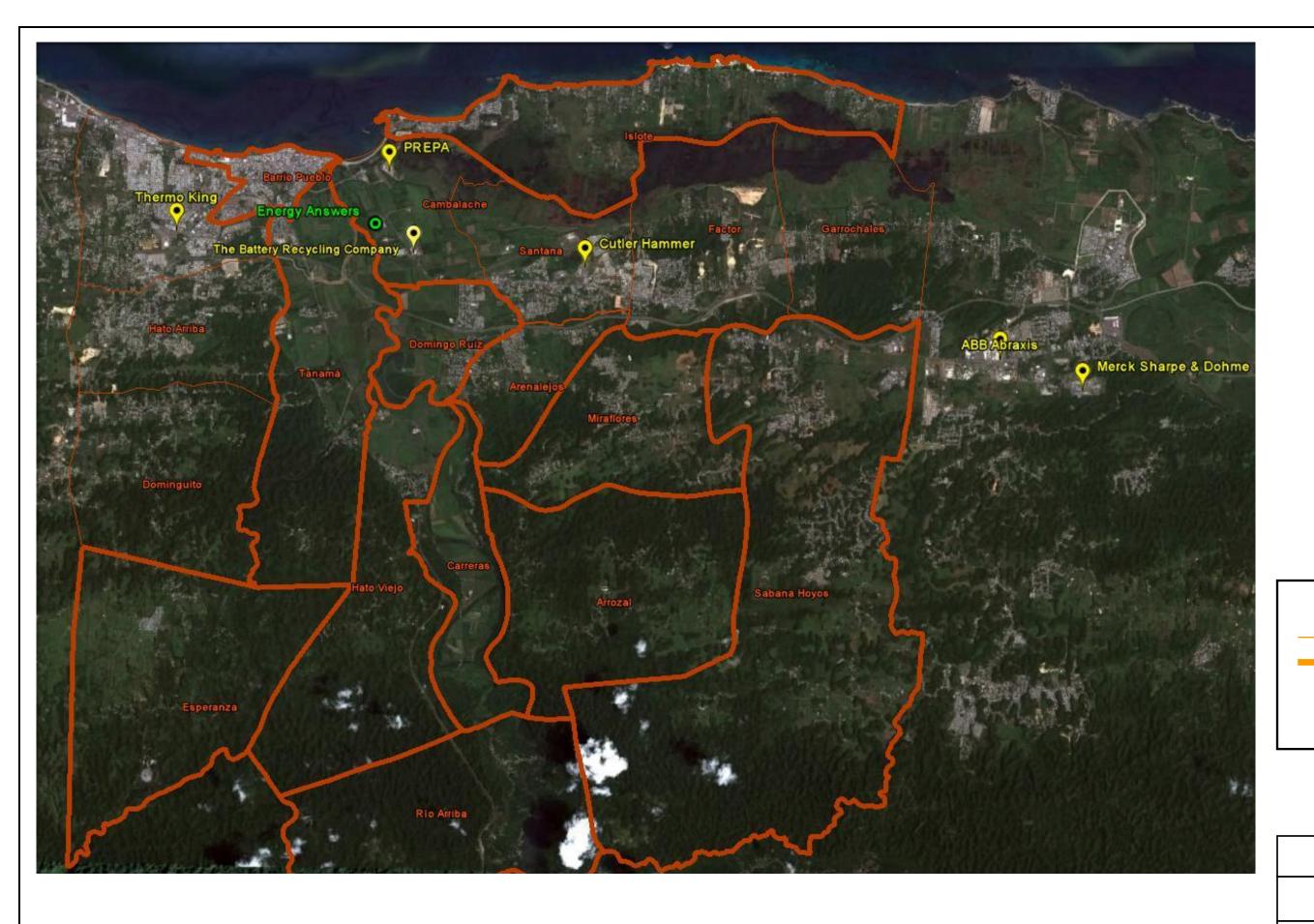
Per the Region 2 guidance, a screening method for evaluating the environmental load profile for the study area includes the identification of facilities that are required to submit Toxic Release Inventory (TRI) Reports to EPA under the Emergency Planning and Community Right To Know Act. Facilities that reported as recent as 2008 were inventoried using EPA's EnviroMapper utility and the rtknet.org database. Figure 2 indicates where these facilities are located in the study area. As shown, there does not appear to be a disproportionate number of facilities reporting under TRI in the low-income Barrios in the study area. The low income Barrios are shown in Bold outline as compared to the ones not considered low income.

In addition, Energy Answers conducted an analysis, as discussed below, which demonstrates that the emissions from the proposed AREP do not cause a disproportionate impact on low-income Barrios in the area.

Following USEPA guidance (USEPA, 1990), a preliminary analysis was conducted to determine if the emissions from the proposed facility resulted in a significant impact on ambient air quality. For each of the criteria pollutants subject to PSD review (NO<sub>x</sub>, SO<sub>2</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub>), the proposed facility's emissions were modeled using EPA's AERMOD dispersion model in accordance with EPA-approved protocols. The maximum pollutant-specific impact for each applicable averaging period was compared to the respective Significant Impact Level (SIL) in 40 CFR 52.

The three operating loads (110%, 100%, and 80%) were modeled

Except for the 1-hour  $NO_2$  and  $SO_2$  averaging period, and the  $PM_{2.5}$  24-hour averaging period, all the other pollutants modeled had impacts that were below their respective SILs under the three load conditions. Therefore, these emissions from the proposed AREP are not considered to cause or contribute to an exceedance of an ambient air quality standard or PSD increment, and a full, cumulative, multisource analysis is not required for these pollutants and averaging periods. Additionally, emissions from the facility that are predicted to be below the SIL are not considered to have the potential to





Non-EJ Barrio Boundary

EJ Barrio Boundary



TRI Reporting Facility

TRI Reporting Facilities in the Arecibo Area

ENERGY ANSWERS ARECIBO, LLC ARECIBO, PUERTO RICO

FIGURE

