

**Example of the Publicly Available Portion of the Audit Report
(Cement Plant)**

See reverse side for Equipment Types and Energy Efficiency Opportunity Categories

Table 1 Facility Energy Consumption and Emissions Audit

| Process/Key Activity | | (2009) Annual Energy Use | | | | Total Energy Use | CO ₂ E | | Criteria Pollutants | | TACs Potency Weighted |
|-------------------------|-------------|--------------------------|--------|--------|--------|------------------|-------------------|-----------------|---------------------|-----------------|-----------------------|
| Name | Equip Types | Electricity | Fuel 1 | Fuel 2 | Fuel 3 | | Electricity Use | Fuel Combustion | PM | NO _x | |
| Primary kiln combustion | 2.3 | | | | | | | | | | |
| Grinding | 4.3, 4.4 | | | | | | | | | | |
| Facility Totals: | | | | | | | | | | | |

Most inputs in the table above correlate to the GHG mandatory reporting, with the exception of CO₂E from electricity use and criteria pollutant and TAC emissions. However, CO₂E from electricity use is a simple calculation based on the electricity use that is reported, and both criteria pollutant and TAC emissions may be verifiable in CEIDARS.

Table 2 Energy Efficiency Improvement Opportunities

| # | Category | Status | Est. Time / Project Start & End | Total Project Cost (\$) | Annual Energy Savings (MMBtu) | Annual Emissions Impacts | | | Annual Savings (\$) | | Pay-back (Yrs) | Reg. Rqmts. | | |
|---|----------|-------------------|---------------------------------|-------------------------|-------------------------------|--------------------------|--------------------------------------|-----------------|---|--------------------|----------------|-------------|--------------------------|-------------------------------------|
| | | | | | | GHG Reductions (MT) | Criteria Pollutant Impacts (+/-) tpy | | TACs Impacts (Potency Weighted) (+/-) tpy | Energy Expenditure | | Other | CEQA | District Permits |
| | | | | | | | PM | NO _x | | | | | | |
| 1 | 2.3G | To be implemented | 5 years / 11/2009 to 12/2014 | 1.7M | 78,200 | 58 | | | -2 | 230,000 | 5,000 | 7 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2 | 4.3F | Not scheduled | 6 months | 900,000 | 23,500 | 20 | | | 0 | 80,000 | 0 | 11.3 | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | 4.4A | Implemented | 2 months 2/2009 to 4/2009 | 25,000 | 5,000 | 5 | | | 0 | 20,000 | 3,000 | 1 | <input type="checkbox"/> | <input type="checkbox"/> |

Equipment Types

| Equip Type # | Equipment |
|--|---|
| 1. <u>Boilers</u> | |
| 1.1 | Boiler for power generation |
| 1.2 | Combined cycle plant |
| 1.3 | Boiler for steam |
| 1.4 | Boiler for cogeneration |
| 1.5 | Boiler for hot water |
| 1.6 | High temperature solar steam |
| 1.7 | Solar hot water heater |
| 2. <u>Thermal Equipment</u> | |
| 2.1 | Furnace |
| 2.2 | Blast furnace |
| 2.3 | Kiln |
| 2.4 | Dryer |
| 2.5 | Oven |
| 2.6 | Coke oven |
| 2.7 | Other direct combustion thermal equipment |
| 3. <u>Chemical</u> | |
| 3.1 | Chemical processing plant |
| 4. <u>Electrical Only Equipment</u> | |
| 4.1 | Electrolytic processes |
| 4.2 | Electric motors – HVAC & refrig equipment |
| 4.3 | Electric motors – pumps & fans |
| 4.4 | Electric motors – other |
| 5. <u>Stationary Combustion Engines</u> | |
| 5.1 | Stationary reciprocating – electricity generation |
| 5.2 | Stationary reciprocating – other |
| 5.3 | Stationary gas turbine – electricity generation |
| 5.4 | Stationary gas turbine – other |
| 5.5 | Stationary gas turbine – other |

Energy Efficiency Opportunity Categories

| Category of Opportunity | Opp ID | Description of Opportunity |
|-----------------------------------|--------|--|
| People, Process, or System | A. | Changes in the staff operation of equipment (e.g., turning off equipment when not in use, better communication with site services about timing and delivery of energy services) |
| | B. | Changes in maintenance practices |
| | C. | Changes in management systems (e.g., procurement, development of staff key performance indicators, evaluation methods of energy efficiency opportunities, energy management policy) |
| | D. | Improvement in energy measurement and monitoring (e.g., metering upgrade, improved energy data analysis and frequency, new database) |
| | E. | Improvement in process control (e.g., better temperature control, the use of higher quality production inputs) |
| Capital Investments | F. | Investment in the same but more efficient technologies (e.g., retrofitting an old motor with a newer, higher efficiency motor) |
| | G. | Investment in new technologies or new configurations of technologies not used before (e.g., a process such as heating/evaporating a liquid to leave a solid product in certain instances can be replaced with a mechanical filtration process) |
| | H. | Investment in research and development, testing, and demonstration |
| | | |