








PROMEEC – Industry In-house Database

Cement Industry

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PROMEEC – Post Workshop 2006-2007**



OUTLINE

-  Background
-  Contents
-  Basic Required Data
-  Design
-  Future Direction



BACKGROUND

September 2006

- Structure and Contents
 - ECCJ Questionnaire
 - » 10 Energy-Intensive Industries
 - » Develop by category

October – November 2006

- Seminar-Workshops
 - Stakeholders would like to see the database

January 2007

- Draft IHD of Cement Industry



GENERAL DATA REQUIREMENT

General Information (Company, Factory & Operation, etc.)

Data [Design / Actual (Daily, Monthly, Yearly)]

- Data on Raw Material / Production
 - Total / by Process
- Data of Energy / Utility Consumption
 - Total / by Process
 - Major Equipment in Each Process

Information on Energy Management (Organization, Project & Activity for EC)



CONTENTS

- General Information (Company, Factory & Operation, etc.)
- Business and Production Description
- Energy Consumption Details
- Utility Consumption Details
- Equipments Description
- Energy Conservation Details



DESIGN

- General Information (Company, Factory & Operation, etc.)

Company: General Information

Please fill in all fields and click **Next** to continue or click **Cancel** to return to the login page.

Country:

Company Name:

Address:

Owner:

Capital: US\$

Annual Sales Amount: US\$

Brief History of the Company:

Factory: General Information

Please fill in all fields and click **Next** to continue or click **Back** to return to the previous page.

Factory Name:

Address:

Factory/Plant Manager:

Number of EEAC Staff:

Do you have an "EC Committee"? ☐ Yes ☐ No

Total Number of Employees:

Number of Engineers:

Mechanical Engineers:

Electrical Engineers:

Daily Operation: Yes No

Weekly Operation: Day/Week Night/Week

Monthly Operation: Day/Month Night/Month

Yearly Operation: Day/Year Night/Year

Operation Time: Hour Minute

Number of Shifts: Shift/Day

Annual Temperature: Max: °C Min: °C Ave: °C

Relative Humidity: Max: % Min: % Ave: %



DESIGN cont..

Business and Production Description

Description: Business and Production

Please fill in all fields and click **Next** to continue or click **Back** to return to the previous page.

Product Name:
Production:
Unity:
Ratio: %
Sales Amount: US\$
Energy Cost Ratio: %
Utility Cost Ratio: %

Details: Daily and Monthly Production

Please fill in all fields. Click **Next** to continue or click **Back** to return to the previous page.

A. Daily Production

Day	Unit	Total
Monday	<input type="text"/>	<input type="text"/>
Tuesday	<input type="text"/>	<input type="text"/>
Wednesday	<input type="text"/>	<input type="text"/>
Thursday	<input type="text"/>	<input type="text"/>
Friday	<input type="text"/>	<input type="text"/>
Saturday	<input type="text"/>	<input type="text"/>
Sunday	<input type="text"/>	<input type="text"/>

B. Monthly Production

Month	Unit	Total
January	<input type="text"/>	<input type="text"/>
February	<input type="text"/>	<input type="text"/>
March	<input type="text"/>	<input type="text"/>
April	<input type="text"/>	<input type="text"/>
May	<input type="text"/>	<input type="text"/>
June	<input type="text"/>	<input type="text"/>
July	<input type="text"/>	<input type="text"/>
August	<input type="text"/>	<input type="text"/>
September	<input type="text"/>	<input type="text"/>
October	<input type="text"/>	<input type="text"/>
November	<input type="text"/>	<input type="text"/>
December	<input type="text"/>	<input type="text"/>



DESIGN cont..

Energy Consumption Details

Details: Energy Consumption

Please fill in all fields. Click **Next** to continue or click **Back** to return to the previous page.

	Name of Energy and Unit	Lower Calorific Value (kcal)	Specific Gravity	Unit Price (P/kg)	Consumption
Liquid Fuel	Propane Gas (kg)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Butane Gas (kg)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Kerosene (kg)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Gasoline (kg)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Gaseous Fuel	LPG (kg)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Natural Gas (m ³)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Coal (t)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Solid Fuel	Coal (t)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Biomass (t)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Wood (t)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Electricity	Grid Power (kWh)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Private Power (kWh)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Details: Daily and Monthly Energy Consumption			
Please fill in all fields. Click Next to continue or click Back to return to the previous page.			
A. Daily Energy Consumption			
Day	Name of Energy	Unit	Consumption
Monday	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
Tuesday	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
Wednesday	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
Thursday	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
Friday	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
Saturday	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
Sunday	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
B. Monthly Energy Consumption			
Month	Name of Energy	Unit	Consumption
January	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
February	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
March	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
April	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
May	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
June	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
July	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
August	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
September	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
October	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
November	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>
December	Propane Gas	kg	<input type="text"/>
	Butane Gas	kg	<input type="text"/>
	Kerosene	kg	<input type="text"/>
	Gasoline	kg	<input type="text"/>

[illegible]

Description: **Energy Consuming Equipment and Electric Power Receiving Devices**

Please fill in all fields. Click **Next** to continue or click **Back** to return to the previous page.

A. Private Power Generation

Private Power Generation: ☐ Yes ☐ No
Number of Generators:
Generated Electricity: MW
Generated Voltage: kV
Power Factor: n/d
Operating Time: hr/yr
Operating Time: min/month
Operating Time: min/month
Operating Time: day/yr

B. Fans

Furnace Number	1	2	3
Completion Year	<input type="text"/>	<input type="text"/>	<input type="text"/>
Heating Capacity (MW)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Heating Temperature (°C)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Interior Dimension	<input type="text"/>	<input type="text"/>	<input type="text"/>
Heating Material	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kind of Fuel	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fuel Consumption (kg/hr)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Operating Time (hr/d)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Operating Time (hr/d)	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description: **Energy Consuming Equipment and Electric Power Receiving Devices**

Please fill in all fields. Click **Next** to continue or click **Back** to return to the previous page.

C. Pumps

Total Number of Pumps:
Total Pump Capacity: kW
Average Power Consumption: kWh/d
Operating Time: hr/d
Operating Time: hr/yr

D. Fan and Blowers

Total Number of Fan/Blowers:
Total Fan/Blower Capacity: kW
Average Power Consumption: kWh/d
Operating Time: hr/d
Operating Time: hr/yr

E. Air Compressors

Total Number of Compressors:
Total Compressor Capacity: kW
Average Power Consumption: kWh/d
Operating Time: hr/d
Operating Time: hr/yr

F. Air Conditioning Equipment

Total Number of Air Conditioners:
Total Air Conditioner Capacity: kW
Average Power Consumption: kWh/d
Operating Time: hr/d
Operating Time: hr/yr

G. Other Equipment

Other Equipment, please specify:
Total Electrical Capacity: kW
Average Power Consumption: kWh/d
Operating Time: hr/d
Operating Time: hr/yr



DESIGN cont..

Energy Conservation Details

Details: Energy Conservation

Please fill in all fields. Click **Back** to return to the previous page or click **Finish** to save your data. Please review all your information before pressing **Finish**.

A. Previous Energy Conservation Activities

Items	Problems	Measures	Saved Energy	Investment Cost	Implemented Date

B. Current Energy Conservation Activities

Items	Problems	Measures	Saved Energy	Investment Cost	Completed Date

C. Future Energy Conservation Plans

Items	Problems	Measures	Saved Energy	Investment Cost	Completed Date

[Cancel](#) [Back](#) [Finish](#)



FUTURE ACTIVITIES

- Develop IHD for other industries
- Consultation with the FPs and stakeholders
- Presentation of the draft IHD – cement in PROMEEC activities 2007-2008
- Consolidation of IHD of all industries into one database

Thank you for your
kind attention.

