DB
ENGINEERING
3315 Chokecherry Crescent, Mississauga, Ontario, CANADA, L5L 1B1
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ENERGY MANAGEMENT

ONE-DAY COURSE

PROGRAM

2010

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Energy Management
Course Program

9:00 a.m. **Opening Remarks**

9:10 a.m. **Introduction: Energy Management Overview**

- Why do energy management
- Energy management overview
- Project execution

9:30 a.m. **Successful Energy Management Program**

- General principles
- Barriers to energy management
- The Team
- The Action Plan
- The Approach
- Self evaluation

10:00 a.m. **Identification of Energy Efficiency Opportunities**

- Checklists
- Case studies

10:15 a.m. **Coffee Break**

10:30 a.m. **Quantification of Energy Efficiency Opportunities**

- Compressed air systems
- Waste heat recovery
- Thermal insulation
- Exhaust air recirculation
- Adjustable speed drives
- High efficiency lighting
- Power factor correction
- Electrical load management

12:00 p.m. **Lunch Break**

12:45 p.m. **Quantification of Energy Efficiency Opportunities (cont'd)**

- Thermal Storage
    - Case definition
    - Equipment sizing
    - Case studies

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1:15 p.m.

- **Cogeneration**
  - Objectives
  - Types
  - Schemes
  - Feasibility studies
  - Examples

1:45 p.m. **Monitoring, Targeting and Forecasting (MT&F)**

- Definition
- Integration of MT&F in EMS
- Tools
- Live demonstration
- Case studies

2:15 p.m. **Coffee Break**

2:30 p.m. **Economic Analysis**

- Simple payback
- Return on investment
- Benefit/cost ratio
- Internal rate of return
- Net present value and discounted cash flow
- Monte Carlo-based certainty analysis
- Examples

3:30 p.m. **Energy Analysis**

- Objectives
- Types of analyses
- Structure of the analysis
- Procedures employed
- Examples

4:00 p.m. **Closing Remarks**