Cleaner Production at an Environmental Agency:
15 years of experience at CETESB, Sao Paulo – Brazil

Flávio de Miranda Ribeiro
José Wagner Faria Pacheco
CETESB - São Paulo State Environmental Agency

● Established in 1968 (as FESB);

● Staff of 1,995 employees;

● Headquarter (São Paulo city) plus 54 regional offices;

● Main Activities:

  - **Pollution Control** (280,000 recorded industries; per year: 30,000 licences; 50,000 inspections; 25,000 population attendances; 500 chemical emergencies);

  - **Environmental Monitoring** (per year: 4,500 sampling; 200,000 lab. analysis);

  - **Technology Transfer** (training; internat. Cooperation; Cleaner Production; etc);

**MISSION:**

“Guarantee and improve São Paulo State environmental quality, envisioning the sustainable social and economic development”
CP history at CETESB – main activities (1992-2010)

1. **CP pilot projects in industrial sectors**

   - **Obj.:** CP implementation on different industries

   - **Actions:**
     - awareness campaign on CP concepts;
     - companies training;
     - environmental assessment and diagnosis;
     - CP opportunities identification and selection;
     - CP measures implementation; and
     - results reporting

   - **Selected industrial sectors:**
     - Plated jewelry
     - Textile industry
     - Ceramic tile industries
2. **CP technical guides**

- **Obj.**: present CP opportunities for industrial sectors in a simple manner;

- Includes **information on**:
  - industry characteristics;
  - process description;
  - environmental aspects and impacts identification; and
  - the most relevant CP opportunities.

[www.cetesb.sp.gov.br/Tecnologia/producao_limpa/documentos.asp]
## 2. CP technical guides

### Table 1. CP guides published by CETESB until 2010

<table>
<thead>
<tr>
<th>Sector</th>
<th>Year</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing Industry</td>
<td>2003</td>
<td>FIESP, ABTG, SINDIGRAF, ABIGRAF</td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td></td>
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<tr>
<td>Jewelry</td>
<td>2005</td>
<td>ALJ, CIESP, SINDIJOIAS</td>
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<tr>
<td>Beer and Soft Drinks</td>
<td>2005</td>
<td>-</td>
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<tr>
<td>Tanneries</td>
<td>2005</td>
<td>-</td>
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<tr>
<td>Citrus Juices</td>
<td>2005</td>
<td>-</td>
</tr>
<tr>
<td>Personal hygiene, perfumery and cosmetics</td>
<td>2005</td>
<td>ABIHPEC</td>
</tr>
<tr>
<td>Slaughter-Houses (beef / pork)</td>
<td>2006/2008</td>
<td>FIESP, ITAL</td>
</tr>
<tr>
<td>White and Coating Ceramic</td>
<td>2006/2008</td>
<td>FIESP</td>
</tr>
<tr>
<td>Meat Industry (beef / pork)</td>
<td>2006/2008</td>
<td>FIESP, ITAL</td>
</tr>
<tr>
<td>Rendering Plants (beef / pork)</td>
<td>2006/2008</td>
<td>FIESP, ITAL</td>
</tr>
<tr>
<td>Dairy Products</td>
<td>2006/2008</td>
<td>FIESP, SINDILEITE, ITAL</td>
</tr>
<tr>
<td>Paints and Coatings</td>
<td>2006/2008</td>
<td>FIESP, SITIVESP, ABITIM, ABRAFATI</td>
</tr>
<tr>
<td>Pulp and Paper</td>
<td>2008</td>
<td>FIESP, ABTCP, ABRACELPA</td>
</tr>
</tbody>
</table>
3. **CP “success cases”**

- **Obj.** Exemplify and disseminate preventive measures within industry and others;

- **Brief description of:**
  - company characteristics;
  - problem/opportunity;
  - developed actions;
  - results (economic and environmental); and
  - contact (to further details).

- **Prospecting and publication;**

- **Covering several sectors, mainly:**
  - metal-mechanic (38% of the total);
  - chemical/pharmacy (24%);
  - electroplating (18%); and
  - textiles (11%).

[www.cetesb.sp.gov.br/Tecnologia/producao_limpa/casos.asp](http://www.cetesb.sp.gov.br/Tecnologia/producao_limpa/casos.asp)
4. **Partnerships and support to other institutions in CP activities**

- United Nations Environment Programme (UNEP): Red PyCS;
- Brazilian Environmental Ministry (MMA);
- The Sao Paulo CP Round Table (MRPP+L);

**Others:**

- support the organization of the *International Workshop: Advances in Cleaner Production, each two years*;
- support the Sao Paulo City Council in organizing the Municipal CP Conference, held annually since 2002;
- collaboration in the FIESP program to CP fostering at universities; and
- collaboration in several forums (ex: CETESB Environmental Chambers)
5. Other CP activities

• Prevenir Project: cooperation between the CETESB and USEPA, aimed to promote CP measures on enterprises using large industries supply chain as an inductor factor;

• Public Green Purchases Project: using the purchasing power of the state government to induce sustainable behavior of companies;

• Support for CETESB agencies: direct assistance to decentralized agencies, seeking in applying CP solutions to local environmental problems;

• Technical manifestations and answers: technical support to legislative body request analysis for funding at State Environmental Funds; and

• Capacity building (courses and lectures): an annual course, created in 1997 and offered to date; tailored courses on demand; awareness campaigns on CP importance; lectures and events.
Current challenge: bringing CP to CETESB routine

• **Problem:**
  - industry CP adoption is still low respecting to São Paulo State universe;
  - environmental effects of CP strategies, so far, are only marginal;
  - CP has no significant presence in the CETESB routines;

• **Proposal:**
  - State Decrees 47,397 and 47,400: Renewable Operating Permit (LOR);
  - opportunity to both periodic update the information and offer a stimulus to continuous improvement in company’s environmental performance;
  - Introduction of the “Environmental Improvement Plans” (PMA);
  - Criteria definition is proposed through CETESB Environmental Chambers;

• **Evaluation:**
  - means a significant change in the way the permitting process is conducted;
  - The LOR process is the first explicitly *performance-based* environmental regulation in Brazilian legal system;
Conclusion

• The evolution of CP in CETESB followed the trend of its own evolution in businesses (P2 – CP – CPS);

• It points to a new transition where CETESB is expected to find its particular vision and way of action;

• Some important results have been achieved, especially in dissemination of concepts, convincing relevant stakeholders and institutions to care of the issue;

• But there is still a significant way to go towards the establishment of CP routines in CETESB, and more broadly, in Sao Paulo State environmental policy;

• To meet these challenges CETESB has pledged to strengthen dialogue on this need, both internally (with the permitting staff) and externally (with industry representatives);
OBRIGADO !!

Flávio de Miranda Ribeiro

flv.ribeiro@usp.br

flavor@cetesbnet.sp.gov.br