WE ARE AT BEIJING, CHINA - AUGUST 2005

ANA LUISA AROCENA

I UPAC-UNESCO-UNIDO Safety Training Program
40th IUPAC CONGRESS - 43th IUPAC GENERAL ASSEMBLY
I CAME FROM THE ANTIPODES, URUGUAY

ANTIPODES: Any two places or regions that are on diametrically opposite sides of the earth
Table 1: 2005 Environmental Sustainability Index – Scores and Rank

<table>
<thead>
<tr>
<th>ESI Rank</th>
<th>Country Name</th>
<th>ESI Score</th>
<th>OECD Rank</th>
<th>Non-OECD Rank</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Finland</td>
<td>75.1</td>
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<tr>
<td>2</td>
<td>Norway</td>
<td>73.4</td>
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<tr>
<td>3</td>
<td>Uruguay</td>
<td>71.8</td>
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<td>4</td>
<td>Sweden</td>
<td>71.7</td>
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<td>Iceland</td>
<td>70.8</td>
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<td>Guyana</td>
<td>62.9</td>
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</tbody>
</table>

38 Malaysia
39 Congo
40 Mali
41 Netherlands
42 Chile
43 Bhutan
44 Armenia
45 United States
URUGUAY

CHEMICAL AND PHARMACEUTICAL WASTE MANAGEMENT

- Lack of regulations.
- Minimum – or non available - public budget for waste treatment technologies development.
- Non attractive market for private investments.
- Susceptible society – well informed - prevented against waste management sites.
MA&A S.A. - www.mayauruguay.com

Project started on 1996. Ana Luisa + Ruben
Founded as a company on 2001. 6 shareowners

- Collection, classification, treatment or re-conditioning to send to another operations (recycling, composting, landfill) industrial wastes.
- Serving the Pharmaceutical and Chemical Industry.
- HERMES project for mercury lamps disposal.
MA&A’s FIGURES

- Environmental National Authority Permit
- 100 tonnes/months received
- 9% recycled
- 15 employees, 7 shareholders
- US$120,000/year
- Clients: 77
CEMPRE Uruguay
Compromiso Empresarial para el Reciclaje
Business Commitment for Recycling

- Non-profit organization – www.cempre.org.uy
- Mission: To promote waste minimization and recycling
- Activities: education, promoting relationships and research on recycling and good waste management practices
- Executive Secretary since 1998
- Close-related with local governments, recyclers and scavengers. All of them need SHE!!
IUPAC-UNESCO-UNIDO
Safety, Health, Environment Program
Oct 2003 – USA
Trainees: Jane and Ana Luisa

2. Superior Special Services, Inc. – ONYX. Port Washington, Wisconsin (Mercury wastes processor).
3. Onyx Environmental Services, LLC. Menomonee Falls, Wisconsin (Treatment, storage facility and transportation of non-hazardous and hazardous wastes).
5. Shawnee Township. Fire Department. Lima, Ohio.
8. Envirosafe Services of Ohio, Inc. Oregon, Ohio. (Industrial landfill)
I received from the SHE Training Program:

• Empowerment to use simple technologies: we saw them at USA!
I received from the SHE Training Program: (cont.)

• Empowerment to look for local solutions: Realize the economic differences between countries and to be free to go to the essential.
I received from the SHE Training Program: (cont.)

• **Empowerment to invest in monitoring, protection, control.** They are the basis to measure, to be conscious about what it is happening, where I need or not more technology to prevent negative impacts.
I received from the SHE Training Program: (cont.)

• **Confidence to work without pace but with patience through systems’ implementation**
  (ISO 14000, Responsible Care):

  - they are necessaries, but they need a lot resources!

• **The importance of MSDSs**
  - They are edited for developed countries
  - More than one source, sometimes contradictories
  - Each country or each region would need to produce its own data.
  - It is necessary standardization or certification.
Some ideas

The whole world needs **ECO-EFFICIENCY**. Developing countries are urged to deal with due to socioeconomic urgencies.

1. To join the interests among corporations, ‘SMME’, universities, governments and cooperation

2. To be up-dated about technologies (treatment + control) and regulations

3. Good mind for becoming adapted. Well trained to inform, to educate, to work as an artist over behavior.
Final comment

IUPAC-UNESCO-UNIDO Safety Training Program is an useful tool to get an experimental up-dating of trends, technologies and regulations, to get confidence and empowerment.

To spill off the experience on the community the trainee has to have personal conditions – good mind, leadership – to apply procedures and alternatives on his/her reality.

It is a good challenge, not easy.

THANKS.