



**CETESB**

**ENVIRONMENT AGENCY OF SAO PAULO STATE - BRAZIL**

**STOCKHOLM CONVENTION REGIONAL CENTRE FOR  
LATIN AMERICA AND THE CARIBBEAN REGION**

**Ex-COPs Rotterdam, Basel and Stockholm Conventions  
Synergies through regional delivery**

**SHARING PRACTICES AND SUCCESS STORIES**



**SIDE EVENTS  
18:15h-19:45hs**

**May 3<sup>rd</sup> 2013, Geneva, Switzerland**



# SHARING PRACTICES AND SUCCESS STORIES

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**1. NETWORK OF THE FOUR STOCKHOLM CONVENTION REGIONAL CENTRES FOR LATIN AMERICA AND THE CARIBBEAN REGION**

- 2. EFFECTIVE PARTNERSHIP AND RESOURCE MOBILIZATION**
- TRAINING AND CAPACITY BUILDING
  - PILOT PROJECTS ON OBSOLETE PESTICIDE WASTES

**3. AIR EMISSION MONITORING AND PERMITTING CRITERIA FOR UNITS IN SAO PAULO STATE**





# SHARING PRACTICES AND SUCCESS STORIES

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## NETWORK OF THE FOUR STOCKHOLM CONVENTION REGIONAL CENTRES FOR LATIN AMERICA AND THE CARIBBEAN REGION





## **NETWORK OF THE FOUR STOCKHOLM CONVENTION REGIONAL CENTRES FOR LATIN AMERICA AND THE CARIBBEAN REGION**

Cooperation and Coordination principle - **Decision SC-5/21-Annex III**

**“aims of developing a coordinated joint action to strengthen  
and enhance the implementation of the Convention in the  
countries of the Latin American and Caribbean region”**

This Network is considered a pioneer in its design and operation, since  
It promotes implementation of joint activities and projects in order to  
avoid the doubling of actions.





**November 04<sup>th</sup> to 06<sup>th</sup> 2009 in Montevideo, Uruguay – “Regional Seminar on Awareness and Strengthening of cooperation and coordination among Stockholm, Basel and Rotterdam Conventions”, BCSC in Uruguay-**

**Conclusions:**

- ✓To link the needs of the region to improve and strength the synergistic process of cooperation and coordination between the three conventions;
- ✓To promote the role of the Centres in strengthening regional capacity to achieve compliance with the objectives of the three conventions;

**October 14<sup>th</sup> 2011 in México City, Mexico, a meeting was hold in order to identify regional action plans, activities and synergies among the GRULAC Regional Centres in SCRC-CENICA**

**Conclusions:**

- ✓To identify regional action plans, activities and synergies





## CETESB the Network's Coordination of the year 2011-2013

### **WORKSHOP OF REGIONAL CENTRES OF STOCKHOLM AND BASEL CONVENTIONS FOR LATIN AMERICAN AND THE CARIBBEAN REGION CETESB, SAO PAULO, BRAZIL**

#### **Objective:**

**To review the issues devised by each Regional Centre Work Plans**

**To identify the common activities among the Work Plans**

**To identify the joint Regional Projects among the Regional Centres**





## GRULAC REGIONAL CENTRES WORKSHOP PARTICIPANTS

### **ARGENTINA / INTI - National Institute of Industrial Technology**

Basel Convention Regional Centre for South America

### **BRAZIL / CETESB - Environmental Protection Company of Sao Paulo State**

Regional Centre of Stockholm Convention for GRULAC Region

### **EL SALVADOR/ SICA - Integration Centre American System**

Centro Regional del Convenio de Basilea para CentroAmérica y Mexico - CCAD

### **MEXICO/ CENICA – National Centre for Environmental Research and Training**

Regional Centre of Stockholm Convention for GRULAC Sub-Region

### **PANAMA/CIIMET - Centre of Research and Information of Medicines and Toxics**

Regional Centre of Stockholm Convention for GRULAC Sub-Region

### **TRINIDAD AND TOBAGO / Ministry of Housing and the Environment**

Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean

### **URUGUAY / LATU - Technological Laboratory of Uruguay**

Basel Convention Coordinating Centre, Stockholm Convention Regional Centre, for GRULAC Region



# **WORKSHOP OF REGIONAL CENTRES OF STOCKHOLM AND BASEL CONVENTIONS FOR LATIN AMERICAN AND THE CARIBBEAN REGION CETESB, Sao Paulo, Brazil**

**MAIN CONCLUSIONS: IDENTIFIED THE ISSUES AND PRIORITIES TO DEVELOP JOINT REGIONAL PROJECTS AMONG REGIONAL CENTRES.**

**✓ TO IMPLEMENT A REGIONAL CENTRES NETWORK**

**✓ TO PROMOTE CAPACITY-BUILDING IN THE FOLLOWING MAIN ISSUES: WEEE ; Hg ; D&F; ENDOCRINE DISRUPTORS; CONTAMINATED SITES MANAGEMENT; OPEN BURNING ELIMINATION ;ESM ON POPs AND CHEMICALS**

**✓ TO RAISE AWARENESS, CLEARING-HOUSE MECHANISM AND INFORMATION EXCHANGE, ON HEALTH AND ENVIRONMENTAL IMPACTS OF CHEMICALS AND WASTES RELATED TO THE THREE CONVENTIONS**

**✓ ISSUES FOR REGIONAL JOINT PROJECT - SAMPLING, LABORATORY ANALYSES AND MONITORING ON POPs AND Hg, OZONE-DEPLETING SUBSTANCES (ODS)&POP<sub>s</sub> DESTRUCTION AND ELECTRIC ELECTRONIC EQUIPMENT WASTES MANAGEMENT.**







# Workshop of Regional Centres of Stockholm and Basel Conventions for Latin American and the Caribbean Region

## CETESB, Sao Paulo, Brazil

### Conclusions:

- ✓ Developed a draft version of an **integrated and joint is** Regional Centres;
- ✓ Proposal of **Joint Projects**;
- ✓ Folder Rio+20: **“THE FUTURE WE WANT” AND THE NETWORK OF THE REGIONAL CENTRES FOR LATIN AMERICA AND THE CARIBBEAN REGION”**.

**Argentina**

CRIBAS  
Centro Regional Basico para America del Sur  
INTI - National Institute of Industrial Technology

**El Salvador**

CCAD  
Centro Centro Americano de Estudios y Estudios  
CICA - Integration Centre American System

**Trinidad & Tobago**

Ministry of Housing and the Environment

**Uruguay**

MVOTMA  
LATU - Technological Laboratory of Uruguay

**Brazil**

CETESB  
CETESB - Environmental Protection Company of Sao Paulo State

**Mexico**

SEMICA - National Centre for Environmental Research and Training

**Panama**

CEMET - Centre of Research and Information of Medicines and Toxics

**C**

**“THE FUTURE WE WANT” AND THE NETWORK OF THE REGIONAL CENTRES FOR LATIN AMERICA AND THE CARIBBEAN REGION**



**CETESB • Stockholm Convention**  
**Regional Centre** for Capacity  
Building and Technology  
Transfer in the Latin America  
and Caribbean Region

# CETESB ACTIVITIES

## CAPACITY BUILDING AND TECHNOLOGY TRANSFER



**BRAZIL : 190 MILLION PEOPLE**

**SAO PAULO STATE**

**AREA : 248,000 SQ. KM**

**POPULATION: 40 MILLION PEOPLE**



**CETESB**



**CETESB LOCATED IN SAO PAULO CITY**

**□GRULAC: 33 COUNTRIES**

**□WORKING TOGETHER OTHER CENTRES**

**□CLPL- PORTUGUESE LANGUAGE**

**COUNTRIES COMMUNITY: 8 COUNTRIES**



**SOCIO-ECONOMIC AND ENVIRONMENTAL  
IMPACT ASSESSMENT**

**ENVIRONMENTAL LICENSING AND  
POLLUTION SOURCE CONTROL**

**ENVIRONMENTAL QUALITY  
CONTROL FOR SOIL AND  
GROUNDWATER  
INLAND AND COASTAL  
WATERS, SEDIMENTS AND AIR**

**WASTE AND  
CONTAMINATED SITES  
MANAGE**

**ENVIRONMENTAL  
EMERGENCIES  
RISK ASSESSMENT**



**ENVIRONMENTAL  
ANALYSES**

**ENVIRONMENTAL  
TOXICOLOGY**

**KNOWLEDGE  
TRANSFER**

**INTERNATIONAL  
COOPERATION AND  
ENVIRONMENTAL  
NETWORKS**

**CLEANER  
PRODUCTION**



**CETESB • Stockholm Convention**  
**Regional Centre** for Capacity  
Building and Technology  
Transfer in the Latin America  
and Caribbean Region

# GRULAC REGION NEEDS

## CAPACITY BUILDING AND TECHNOLOGY TRANSFER

## IDENTIFIED PRIORITIES BY NIPs

**Fourteen countries : 52 % OF GRULAC NIPs TO THE SECRETARIAT**

**☐75% of them :**

✓to build up capacity to disseminate public information and to develop people`s awareness of the harms caused by POPs .

✓to build up capacity to reduce dioxins and furans emissions, to make an inventory of them and to promote BAT/BEP .

✓an inventory of PCBs , how to reduce and manage them.

☐to build up capacity to manage contaminated sites.

☐63% of them :environmentally sound disposal of POPs contaminated wastes

☐38% of them :

✓ to strengthen laboratory capacity to monitor and analyse POPs

☐25% of them :

✓ enforcement capacity : legislation, polices and institutional strengthening.

### **Brazil :**

**Consolidation of the regulatory framework**

**Identification and characterization of contaminated sites**

**Development of inventories on the production, use, trade, stockpiles and wastes**

**Identification of unintentional sources of POPs and determination of emission**

**infra structure and logistics for labs to give support for the CONVENTION**



## WORK PLAN



Stockholm Convention  
on persistent organic  
pollutants (POPs)

### ACTIONS – WORK PLAN

- ❑ TO PROVIDE LABORATORIES WITH THE NECESSARY KNOW-HOW IN ORDER TO STRENGTHEN THE QUALITY MONITORING ON POPs - (Polychlorinated Biphenyls- PCBs, CHLORINATED ORGANIC PESTICIDES AND DIOXIN AND FURANS
  
- ❑ TO STRENGTHEN REGULATORY CAPACITY
  
- ❑ TO TRAIN TECHNICIAN/DECISION MAKERS/ANALYSTS TO IDENTIFY AND MANAGE : POP CONTENT WASTES, POPs CONTAMINATED SITES, ENVIRONMENTALLY SOUND TECHNOLOGIES FOR AIR POLLUTION CONTROL., ORIENTATIONS FOR TECHNICAL ALTERNATIVES BASED ON BAT BEP
  
- ❑ TO DEVELOP A MODEL PROJECT TO MANAGE POPs OBSOLETE PESTICIDES
  
- ❑ TO DEVISE GUIDELINE TO APPLY ENVIRONMENTALLY SOUND TECHNOLOGIES FOR AIR POLLUTION CONTROL AND SOLID WASTE.20



# SHARING PRACTICES AND SUCCESS STORIES

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## TRAINING AND CAPACITY BUILDING BY MEANS OF EFFECTIVE PARTNERSHIP AND RESOURCE MOBILIZATION







# SHARING PRACTICES AND SUCCESS STORIES

TRAINING AND CAPACITY BUILDING BY MEANS OF  
EFFECTIVE PARTNERSHIP AND RESOURCE MOBILIZATION

INTERNATIONAL TRAINING COURSE ON ENVIRONMENTALLY  
SOUND MANAGEMENT CHEMICALS AND WASTES, SPECIALLY  
PERSISTENT ORGANIC POLLUTANTS (POPs) UNDER  
STOCKHOLM CONVENTION





**CETESB • Centro Regional da Convenção de Estocolmo sobre POPs para a América Latina e Caribe**

**I CURSO INTERNACIONAL PARA CAPACITACIÓN INTENSIVA EN LA GESTIÓN AMBIENTAL DE LOS CONTAMINANTES ORGÁNICOS PERSISTENTES - COPS**

**SÃO PAULO • BRASIL • 9/01/2012 A 9/02/2012**

**APPROVED PROJECT BY:** partnership between Brazilian Cooperation Agency (ABC) and International Cooperation Agency of Japan (JICA)

**PROJECT DURATION:** 2011 to 2015(5 YEARS)

**TOTAL PROJECT BUDGET:** US\$ 2,030,144.00

**FUNDING SOURCES FOR 5 YEARS (US\$):**

- ABC : 27,800.00
- BRAZIL: 217,000.00 (SUPPORT BRAZILIAN STATES)
- CETESB: 719,844.00
- JICA : 1,065,500.00 ( SUPPORT COUNTRIES)

**BENEFICIARY COUNTRIES:** GRULAC, 27 Brazilian States and countries

**LOCAL& TEACHERS:** CETESB'S EXPERTS & CETESB's FACILITES

**OFFICIAL LANGUAGES:** SPANISH/PORTUGUESE/ ENGLISH/



## OBJECTIVES:

PROVIDING TECHNICAL AND ADMINISTRATIVE PROCEDURES ON CHEMICALS AND WASTES

STRENGTHENING THE TECHNICAL CAPACITY OF THE COUNTRIES TO COMPLY WITH OBLIGATIONS OF THE BASEL, ROTTERDAM AND STOCKHOLM CONVENTIONS

**PERIOD OF EACH TRAINING :** LASTS 6 WEEKS, DIVIDED INTO 3 MODULES THAT FOCUSES ON DIFFERENT AUDIENCE, SUCH AS :

### ❑ **MODULE I-POPs ENVIRONMENTALLY SOUND MANAGEMENT: 3 WEEKS**

Topics: toxicology, urban/industrial/health solid waste management, unintentional-POPs, chemical emergency responses/CEE, soil/groundwater pollution prevention and contaminated site management practical classes

### ❑ **MODULE II- TECHNICAL PRACTICES ON SAMPLING/MONITORING: 2 WEEKS**

Topics: collection, preservation of samples: water, solid waste, sediment, air emission, soil/groundwater and practical classes

### ❑ **MODULE III - ANALYSIS OF ORGAN AND METALS COMPOUNDS – 1 WEEK**

❑ Topics: Practical analysis on CG-ECD/MS results, quality assurance/ quality control, requirements for ISO/IEC 17025 accreditation



## **2012- FIRST EDITION - JANUARY 9 – FEBRUARY 9**

### **FORTY-NINE PROFESSIONALS**

- 26 participants supported by the project: Colombia, Costa Rica, Cuba, Dominican Republic, Guatemala, Nicaragua, Panama, Paraguay and Venezuela**
- 16 participants supported by Brazil: Amapá, Goiás, Pernambuco, Piauí, Rio de Janeiro and Tocantins and 08 CETESB's technicians**

## **2013- SECOND EDITION - JANUARY 7 – FEBRUARY 7**

**MARCH 4 – 8**

### **SIXTY PROFESSIONALS**

- 30 participants supported by the project: Argentina, Bolivia, Chile, Ecuador, El Salvador, Colombia, Honduras, Mexico, Peru, Uruguay**
- 30 participants from 10 Brazilian States**



**2013- THIRD EDITION- OCTOBER/NOVEMBER**

**THIRTY TECHNICIANS FROM 10 ENGLISH SPEAKING  
GRULAC COUNTRIES**

**THIRTY FROM 10 BRAZILIAN STATES**



**JBPP**  
PROGRAMA DE PARCERIA BRASIL-JAPÃO



Ministério do  
Meio Ambiente



**SECRETARIA DO  
MEIO AMBIENTE**





## SHARING PRACTICES AND SUCCESS STORIES

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**PILOT PROJECTS BY MEANS OF EFFECTIVE PARTNERSHIP AND RESOURCE MOBILIZATION**

**PILOT PROJECTS ON OBSOLETE PESTICIDE WASTE ENVIRONMENTAL SOUND MANAGEMENT EXISTING IN SAO PAULO STATE**





# SHARING PRACTICES AND SUCCESS STORIES

**PREVIEWED ACTIONS (2000-2009)**

**SINCE THE YEAR OF 2000 :**

**CETESB**

**AGRICULTURE AND SUPPLY SECRETARIAT (SAA) and**

**THE BRAZILIAN INSTITUTE FOR EMPTY PESTICIDE**

**CONTAINER PROCESSING (INPEV)**

**RESULT: 105 TONS OF OBSOLETE PESTICIDE WASTES :**

**ALREADY REMOVED AND INCINERATED**





**DEVISE, DEVELOP AND IMPLEMENT A PILOT PROJECT ON THE MANAGEMENT OF POPs OBSOLETE PESTICIDE WASTES EXISTING IN THE RURAL PROPERTIES IN SAO PAULO STATE**

**OBJECTIVES:**

- **TO ESTABLISH A PROJECT TO ELIMINATE THE OBSOLETE PESTICIDES-POPs STORED OR REMAINED IN THE RURAL PROPERTIES IN SAO PAULO STATE, CONSISTING OF: COLLECTING, HANDLING, TRANSPORTING AND DISPOSING OF THE OBSOLETE PESTICIDE WASTES**
- **TO ELABORATE A MODEL TO BE DISSEMINATED**

**PROJECT DURATION:** 2010/JANUARY TO 2013/AUGUST -42 MONTHS

**BENEFICIARY INSTITUTIONS:** SAO PAULO STATE/BRAZIL AND GRULAC COUNTRIES

**TOTAL PROJECT BUDGET:** US\$ 2,465,000.00

**THE FUNDING SOURCES :**



INSTITUTIONS (Resources)	
CETESB & FECOP&SAA	PRIVATE SECTOR
US\$ 1,565,000.00	US\$ 900,000.00





## DEVISE, DEVELOP AND IMPLEMENT A PILOT PROJECT ON THE MANAGEMENT OF POPs OBSOLETE PESTICIDE WASTES EXISTING IN THE RURAL PROPERTIES IN SAO PAULO STATE

### SUMMARY:

**1<sup>ST</sup> Step:** Created an Interdisciplinary Working Group by legal document comprising: Environment/Agriculture Secretariats of Sao Paulo State, CETESB/Regional Centre, private sectors such as (INPEV/industries, distributors, trade associations) and users.

**2<sup>ND</sup> Step:** Devising and Diagnosing: Inventory of Obsolete Pesticide-POPs in Rural Properties

**Training:** Eighty technicians from the Agriculture Secretary trained by the WG team to promote farmers' awareness

### Awareness Campaign:

“Inventory of obsolete pesticides:  
farmers, we need you”





# DEVISE, DEVELOP AND IMPLEMENT A PILOT PROJECT ON THE MANAGEMENT OF POPs OBSOLETE PESTICIDE WASTES EXISTING IN THE RURAL PROPERTIES IN SAO PAULO STATE



## SUMMARY:

**Statement from 318 rural properties – 400 TONS OF OBSOLETE PESTICIDES-POPs distributed in 123 municipalities (a total of 600)**

Alvilandia



Araraquara



**3<sup>rd</sup> Step: Implementation: Holding, Collecting, Storing and Transporting**

**4<sup>th</sup> Step: Destination: Incineration ( next action)**



# UNITS IN SAO PAULO STATE

- **INCINERATORS**
- **INDUSTRIAL WASTE INCINERATORS**
- **MEDICAL WASTE INCINERATORS**
- **MUNICIPAL WASTE INCINERATOR ( ON PROCESSING)**
  
- **BOILERS AND FURNACES BURNING HAZARDOUS INDUSTRIAL WASTES**
  
- **CO-PROCESSING OF WASTES IN CEMENT KILNS**



# INDUSTRIAL WASTE INCINERATORS STATE OF SAO PAULO



**04 UNITS FOR  
DESTRUCTION OF  
HAZARDOUS WASTES  
IN GENERAL**

**05 UNITS FOR  
DESTRUCTION OF  
HAZARDOUS WASTES  
GENERATED IN  
SPECIFIC INDUSTRIAL  
PROCESSES**



# MEDICAL WASTE INCINERATION STATE OF SAO PAULO

□ **03 UNITS FOR HEALTH  
SOLID WASTES**

➤ **CAPACITY OVER THAN  
1,500 KG/DAY**





# LEGISLATION FOR AIR POLLUTION CONTROL

## WASTE INCINERATORS

<b>EMISSION LIMITS</b>	<b>State of Sao Paulo CETESB E15.011 ,1997</b>	<b>Brazil- Resol CONAMA 316, 2002</b>
<b>D&amp;F</b>	Emission standard- 0.14ng/Nm3(*)	Emission standard- 0.50 ng/Nm3 (*)
<b>PCB</b>	Minimum efficiency of 99.99% removal and destruction	Minimum efficiency of 99.99% removal and destruction

(\*) to 7% oxygen, dry base expressed as 2,3,7,8 TCDD (tetrachlorodibenzo-p-dioxin)



# **BOILERS AND FURNACES BURNING HAZARDOUS INDUSTRIAL WASTE AND AREA DECONTAMINATION PROCESSES**

**☐ SAME CRITERIA AND LEGISLATION AS THE INDUSTRIAL WASTE INCINERATORS**

**☐ SOURCE LOCATION AND CHARACTERISTICS OF THE WASTE**

**☐ CHARACTERISTICS OF THE EQUIPMENT INSTALLED FOR AREA DECONTAMINATION PROCESSES**



# MUNICIPAL WASTE INCINERATOR

- **01 UNIT ALREADY LICENSED**
- **LOCAL: METROPOLITAN REGION OF SAO PAULO STATE**
- **CAPACITY: 825 TONS/DAY OF MUNICIPAL SOLID WASTE (MSW)**
- **GENERATION: 17 MW OF ELECTRICITY**





# CO-PROCESSING OF WASTES IN CEMENT KILNS IN SAO PAULO STATE

- **02 UNITS LICENSED FOR INDUSTRIAL WASTE( RAW MATERIAL OR COMBUSTIBLE **SUBSTITUTION** )**
- **02 UNITS LICENSED FOR ONLY TIRES (ENERGY RECOVERY)**
- **02 UNITS IN PROCESSING OF PERMITTING**

## CO-PROCESSING OF WASTES IN CEMENT KILNS

Parameter	State of Sao Paulo - CETESB P4.263, 2003	Brazil- Resol CONAMA 316, 2002
<b>D&amp;F Limits</b>	Emission standard-issue 0.10 ng/Nm <sup>3</sup> (*1)	Emission standard- 0.50 ng/Nm <sup>3</sup> (*2)

(\*1) at 11% oxygen, dry base expressed as 2,3,7,8 TCDD (tetrachlorodibenzo-p-dioxin  
 (\*2) to 7% oxygen, dry base expressed as 2,3,7,8 TCDD (tetrachlorodibenzo-p-dioxin



# SHARING PRACTICES

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## **AIR EMISSION MONITORING AND PERMITTING CRITERIA FOR UNITS IN SAO PAULO STATE: PCDD& PCDF ANALYSES AND MONITORING STACK SAMPLING**





## 2005 – New National Legislation

- **PCDD & PCDF annual monitoring**
- **Sources: incinerators, furnaces and boilers and co-processing units**

### **METHODOLOGY**

- ✓ **USEPA Method 23**
- ✓ **03 samples per source**
- ✓ **Obligation to hold a blank field per sample**
- ✓ **Toxicity Equivalency Factors-FTEQ from 2,3,7,8 TCDD**



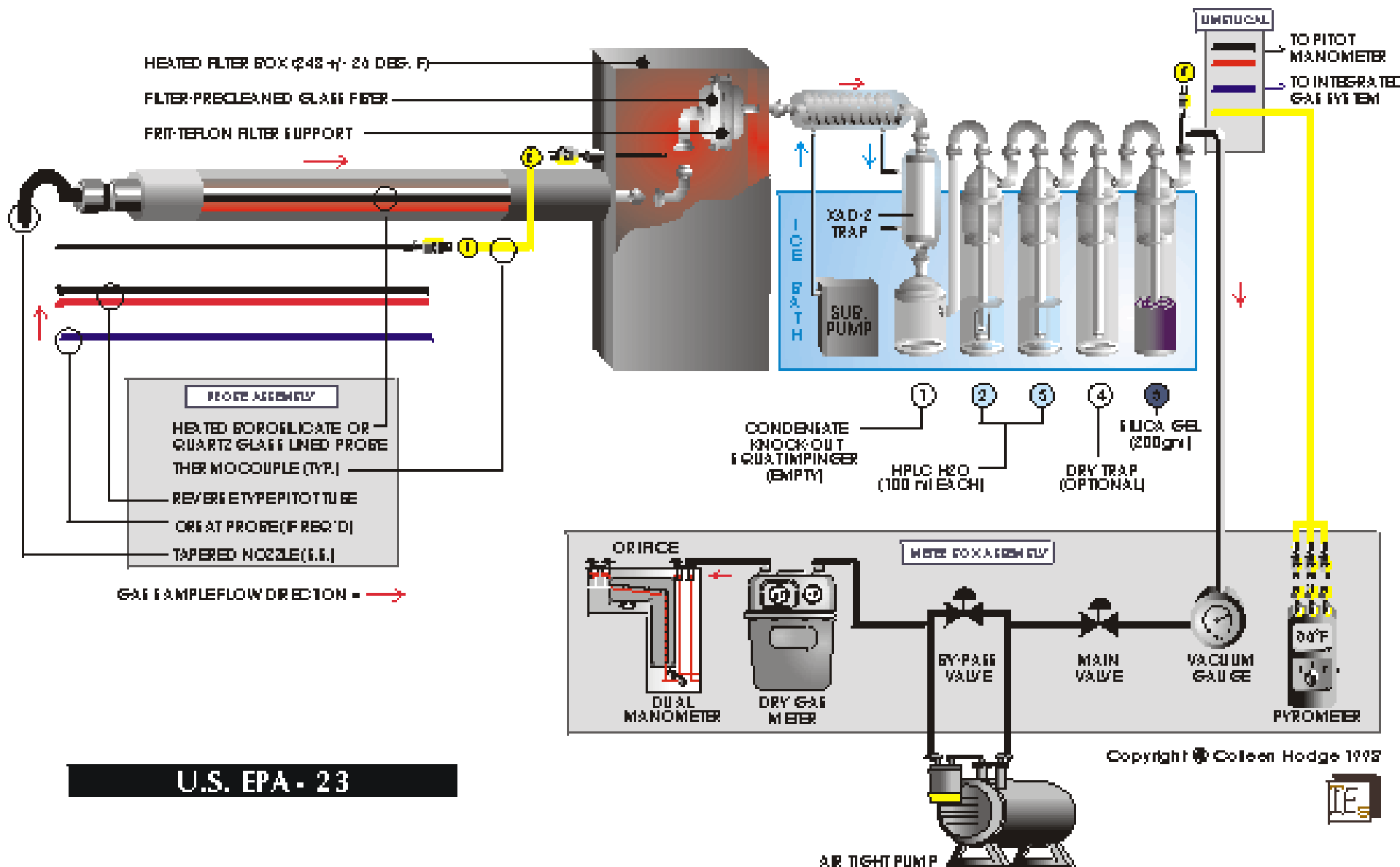
## METHOD OF STACK SAMPLING FOR NEW POPs

- **USEPA Method 10 or CETESB's procedure:L9.232**
- **03 samples per source**
- **Established no periodicity**

## ANALITCAL METHODS

- **RESULTS PRESENTED BY CERTIFICATED LABORATORIES**

# EQUIPMENT STACK SAMPLING



**U.S. EPA - 23**





# CALIBRATION OF THE STACK SAMPLING EQUIPMENT

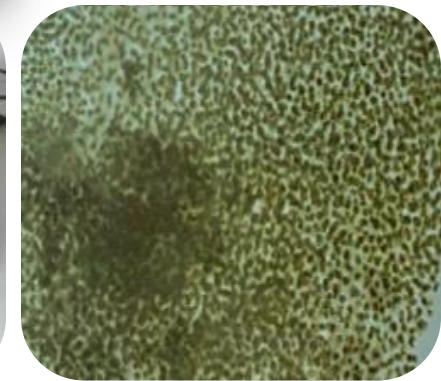
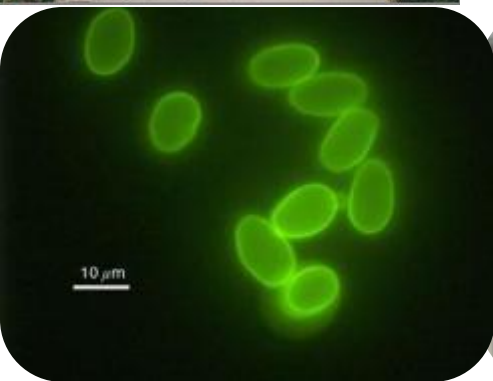
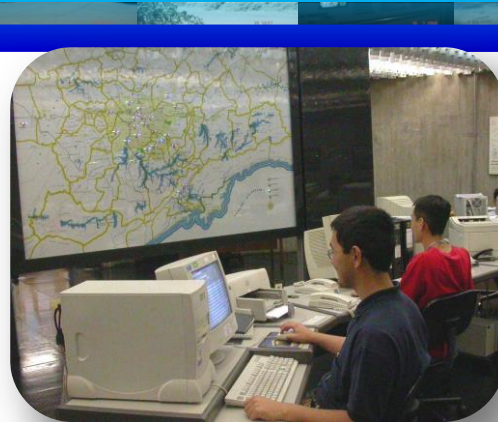
## METHOD CETESB E16.030

**DUST AND STACK STATIONARY SOURCE-CALIBRATION OF SAMPLING EQUIPMENT USED IN AIR EMISSION TEST METHOD (JULY/09)**

**EQUIPMENT MUST BE CERTIFICATED**

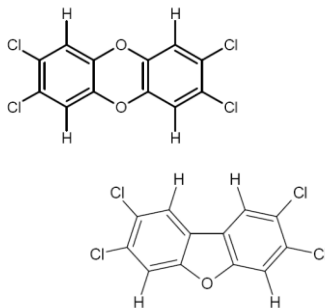
- **WET GASOMETER**
- **DRY GASOMETER**
- **PITOT TUBE**

# ENVIRONMENTAL QUALITY LABORATORY FOR MONITORING →

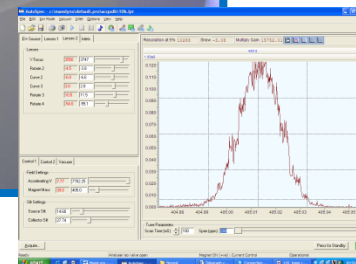


# DIOXINS, FURANS and dioxin-like PCBs - HRGC/HRMS

5-50g



HRGC/HRMS



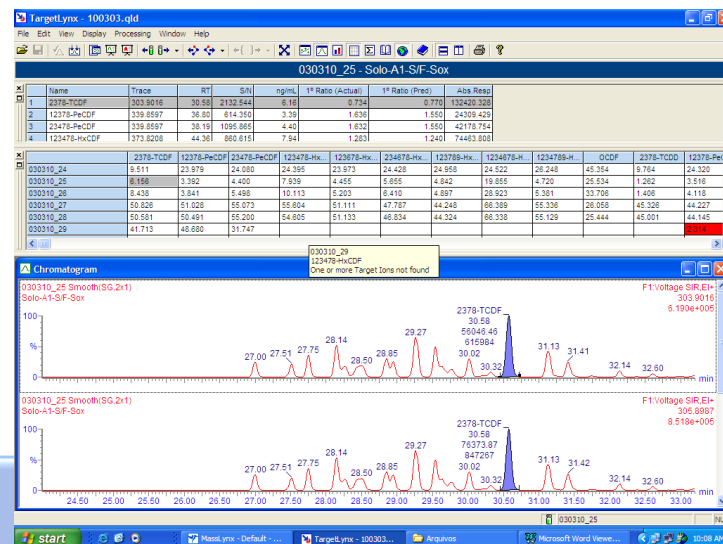
Extraction: Soxhlet or micro-ondas



Purification: Silica  
Gel/Alumina/Florisil /Active Carbon



Extract:  
25 µL







# PROCESS OF THE PERMITTING IN SAO PAULO

ENVIRONMENTAL IMPACT ASSESSEMENT  
SOCIAL/ECONOMICAL/AIR/WATER/SOIL/BIOTA  
PRELIMINARY LICENSE

RISK  
ASSESEMENT

IMPLEMENTING  
LICENSE

BURNIN  
G TEST

OPERATING  
LICENSE

FEEDING  
TAX

CONTINUOUS  
MONITORING

EMISSION  
STANDARD



# CETESB ENVIRONMENTAL AGENCY OF SÃO PAULO STATE – BRAZIL

## REGIONAL CENTRE FOR STOCKOLM CONVENTION



Thank you !

Av. Professor Frederico Hermann Jr., 345 – São Paulo - BRASIL

[www.cetesb.sp.gov.br](http://www.cetesb.sp.gov.br) Tel.+55 11 3133 3862

Lady Virginia Traldi Meneses : [Imeneses@sp.gov.br](mailto:Imeneses@sp.gov.br)



## Extraction

**2-3 days**



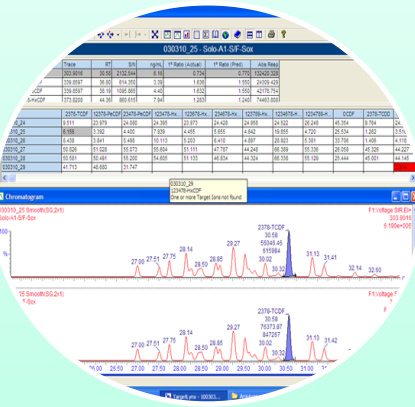
## Purification

**2-3 days**



## Injection

**1 day**



## Data Interpretation

**1/2 day**





# Exemplo da análise de um PUF

