

«Following are a collection of tools and recent experiences to prove the entry of Comisiones Obreras in the environmental practice. Behind them is the hope that a sustainable world is posible»

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**confederación sindical de comisiones obreras**

Labour and environment

# Labour and environment

**Some experiences  
of Spanish trade unions  
in environment**

**confederación sindical de comisiones obreras**

A black and white photograph of a hand holding a small globe. The globe shows a map of the Americas, with labels for Canada, the United States, Mexico, and Central American countries like Guatemala, El Salvador, and Costa Rica. The hand is positioned as if presenting the globe, with fingers gently gripping it. The background is a plain, light color.

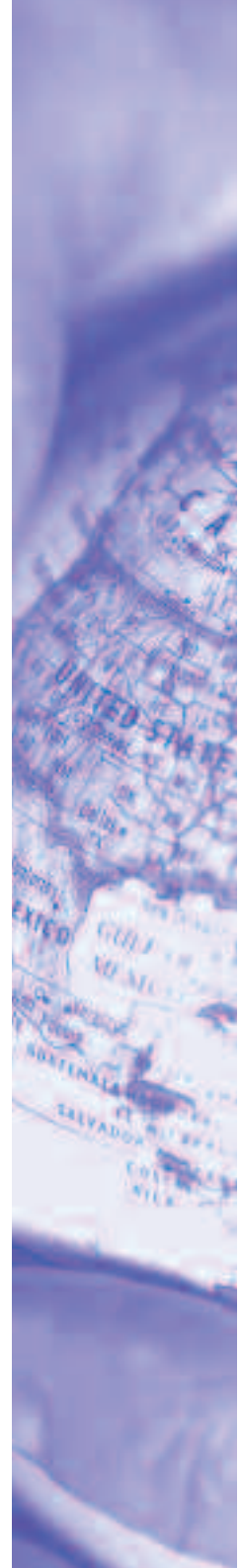
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Designed and composed by: Paralelo Edición  
Legal deposit: M-1602-2006  
Printed on FSC paper

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# Presentation



## From Rio to Nairobi

### Some experiences of Comisiones Obreras in environment

Fourteen years have passed from the Earth Summit of Río de Janeiro in 1992 to the first Trade Unions Assembly on Labour and the Environment of Nairobi in 1996. A period full of lights and shadows for the environment. Lights because there has been an unprecedented increase of environment awareness. The protection of nature has stopped being a question of environmentalists and scientists to occupy the agenda of politicians and economists.

The Framework Agreement on Climate Change and the Kyoto Protocol, that are trying to face up to the main threat at planet scale which is global heating, are a clear example of this new dimension of environmental awareness. This process is also expressed through the signature of other international agreements on the preservation of nature and therefore of the environmental conditions in which life takes place, including social life: biodiversity, desertification, persistent organic pollutants.

In these years, concepts like *Sustainable Development or Sustainability*, have been coined to indicate that conventional development is environmentally unsustainable and that it is necessary to incorporate the environmental dimension to the traditional social and economic dimensions of development. We have also consolidated others like *Social Responsibility of Companies or Social Corporate Responsibility*, to refer to the social and environmental responsibilities to be demanded from companies, with special emphasis on those of multinational nature.

And, above all, a whole battery of regulations and law on environmental protection and several experiences favourable to the protection of the environment have spread, especially within the municipal scope but also in companies and industrial sectors, being the development of renewable energies the most outstanding aspect of this process.

However, the shadows, that is, the progressive and often irreversible degradation of the environment, not only has been halted during these years, but paradoxically has been superior to that of any other decade in human history. The globalization of the most unsustainable production and consumption practices, encouraged by the globalization of the economy without a similar globalization of social rights and environmental protection, have accelerated the destruction cycle of the ecosystems and environmental equilibrium. But not all the damages are reversible, especially the mid and long term damages, although many are already irreparable. This makes the immediate economic and social benefits to continue pushing in favor of a conventional development, as unsustainable as it is.

Nevertheless, the visibility of the environmental damages and their social adverse effects is bigger and bigger, especially those related to climate disturbances due to global warming, that more extremely lash poorer countries and the most vulnerable sectors of rich countries, as in the case of Katrina in New Orleans. The social repercussions of environmental damages are more and more evident: the large-scale deforestation and desertification reduce agroforest resources on which millions of poor people depend, overfishing causes the reduction of the fishery resources, overexploitation and pollution reduce the available hydric resources, large-scale use of toxic substances cause hundreds thousands of work-related deaths. In many cases the damages are already irreparable.

This is the reason why the most diverse social sectors have started to react also in favor of the protection of the environment. Among them workers without whom the change of the production and consumption patterns necessary to move towards a sustainable development, will not be possible. Throughout these fifteen years, trade unions have progressively incorporated to their proposals and their actions the question of environment, being responsible for one of the most hopeful signs of reorientation towards alternative models that combine social justice and sustainability of the environment. Although this process is not free of contradictions, as contradictory as the three dimensions of sustainable development –economic, environmental and social– often appear.

The creation of *Sustainlabour* as an International Labour Foundation for Sustainable Development and the celebration of the first Trade Unions Assembly on Labour

and the Environment in Nairobi 2006, with the participation of more than hundreds of trade union organizations from the five continents is an expression of the strength and the globalization of this process of trade unions incorporation to the environmental challenges of our time.

For fifteen years, as well as other trade unions worldwide, Comisiones Obreras (CCOO) has been working to make employment and environment compatible, with the conviction that only defending an environmentally sustainable development is a development that could be globally generalized and will bring long lasting and sustainable employment.

This commitment that has become a matter of elaboration of proposals and practical union action, has been projected in several directions. One of them, the most institutional has been the participation of the union in all those forums and negotiation committees –in Spain as well as at international level– where questions affecting the environment as well as labour were being discussed, either related to climate change or toxic risk. But this work would be condemned to failure if environment does not reach companies and workplaces. Fostering this second line of action has taken a big part of the efforts of the Confederal Secretariat for Environment of CCOO. The work of the Union's Institution for Labour, Environment and Health (ISTAS), a foundation of technical and trade union nature created with the objective to support and advise the union in all those questions affecting the environment or the health of workers, has been essential at this stage. Not in vain health or environment are matters that require some technical and scientific knowledge necessary to understand and adopt from the perspective of labour and union to elaborate strong proposals.

During these years, not only have we elaborated tens of publications, reports and studies on energy, water, wastes, forest fires or chemical substances, but we have encouraged concrete practices in the workplaces. The creation of *Asesora* a network of more than a hundred technical advisors at the service of local and sectorial unions, to give advice to more than 60,000 Prevention Representatives that represent CCOO. in the companies, has extraordinarily fostered action in companies. Not in vain the network of *Asesora*, supervised by the respective heads of local or sectorial unions and technically coordinated by



ISTAS, solves thousands of specific cases every year, meeting the demands of the Prevention Representatives.

Following are a collection of tools and recent experiences to prove the entry of Comisiones Obreras in the environmental practice. Behind them is the hope that a sustainable world is possible.

Joaquín Nieto  
Confederal Secretary for Environment and Occupational Health  
of Comisiones Obreras

# Introduction



## ECO-UNIONISM

Trade union movement, which started with the industrial revolution, has traditionally been productivist, but the natural limitations to productive growth and the environmental impacts caused by modern industrial societies have called in question the conventional model of development, of productivist vision.

The global reduction of fish catch, deforestation, the exhaustion of non-renewable resources, the irreversible loss of biodiversity, air, water and soil pollution entail the global reduction of productive resources and have caused singular environmental and occupational health problems. The possibility of a global climate change caused by the greenhouse effect gas emissions has created the need to reduce urgently the consumption of fossil combustibles, the base on which the present-day energy production and transportation model is set. All these are proofs of the intrinsic crisis of a development model like the current one, that seeks to increase production without taking into account the unsustainability of the system or the limitations of natural resources, the physical base of the whole economic system. Sooner or later this model will prompt the collapse of productivity and serious environmental, economic and social problems.

On the other hand the awareness of the limits imposed by nature has proved also that the production and consumption model of the most industrialized countries cannot be made universal, because in case it spreads it would exceed the carrying capacity of the planet. Therefore it cannot be a model of equal and fair development. It is also a model that generates underdevelopment in many countries. So, for reasons of equity, international and intergenerational solidarity, it is necessary to make a substantial change of development model towards more environmentally compatible ones. Unionism that started as an association of wage-earners to fight for equality is taking good note of this new environmental dimension of equity. That is why it has made his the concept of sustainable development.

Sustainable development requires the need of efficiency in production and the modification of the consumption systems, reorienting the productive systems of industrialized countries (that have been established as model worldwide through globalization) towards more compatible ones with the natural limitations and the requirements of the environment. The bases of a new production system compatible with the new sustainable development models are mainly two: 1) The systematic evaluation of the environmental consequences of the economic, social, fiscal, energy, commercial, transport and infrastructure policies with a view to integrate the environmental variable in such a way that all the policies are environmentally compatible. 2) The reduction of the amount of energy and materials used in the production of goods and services and the adoption of clean production systems throughout the whole production and consumption process, eliminating toxic products and applying the precautionary principle.

The progressive introduction of the environmental principles in the economy does not have to put jobs at risk and, when implemented, will favourably influence job creation. The impact on employment of the tough environmental regulations can be negative in the short term in a specific place but positive in the long run. In the end there will be no losses, but reallocation of workers, which on the other hand, are frequent due to situations such as technological changes or economic restructuring.

The environmental conversion of industrial, energy, transports and services policies, although it entails the limitation and even the abandonment of products and conventional activities, will generate a new, larger, sustainable and lasting industrial structure and a major stability of the related employments. Nevertheless, this environmental conversion of sensible sectors from the view point of employment should rely on financial help to deal with the unwanted social consequences that such a reconversion could cause so it is not traumatic. Otherwise, some of the environmental conversion processes can be delayed due to workers reluctance because of the possible job losses this could cause.

The situation calls for the unions to work actively towards the adoption of these changes. Since the creation of the Environmental Secretariat in 1991, CCOO has been doing a double function to raise awareness. On one hand, it has put pressure

on political institutions and negotiated for the sustainability of the model to be implemented. On the other hand, it has created, within the trade union, a network of people in charge of the environment whose function is to inform and train workers in all the aspects related to work and environment. Having aware workers is the best instrument for companies to change the practices, which in general, are not environment-friendly. Besides, these changes have an impact on the health of workers who are frequently exposed to toxic substances.

The new productive model we advocate for, based on sustainability, demands a new trade unionism and workers with a different mentality. We have already started doing our job, «our personal reconversion process». We still have to know when companies will follow the example.

# Agreement between the Ministery of Environment and trade unions



## COOPERATION AGREEMENT BETWEEN THE MINISTRY OF ENVIRONMENT AND THE MAIN TRADE UNION CONFEDERATIONS CC.OO. AND UGT TO PROMOTE A QUALITY SUSTAINABLE INDUSTRIAL STRUCTURE

The Ministry of Environment and Trade Union Confederation *Comisiones Obreras* (CC.OO.) and *Unión General de Trabajadores* (UGT) agree upon the fact that the outcome of the elections held on March 14<sup>th</sup> 2004 and the election of Jose Luis Rodriguez Zapatero as president of the Spanish government, open a new phase of change, social progress, dialogue and participation for Spain. In this new phase workers are summoned to play a more active role within the framework of a nationwide strategy for sustainable development led by the Ministry of Environment and in which trade unions will play a key role. Such strategy will promote policies for a more sustainable, innovative and collective industrial structure. We wish to share this commitment with other social and environmental agents and especially with industrial organizations when dealing with environmental action in the enterprises.

The policy managers Ministry of Environment believe this opportunity for a change can be addressed from a strict and realistic point of view to achieve the mentioned goals through the following guidelines and their subsequent actions.

### ***First: Prevention of climatic change and steps to comply with the Kyoto Protocol***

- Approval and development of a strategy to cope with climatic change accurately funded and scheduled.
- Development of a *Nationwide Energy Saving and Efficiency Strategy*
- Promotion of the *Plan for Renewable Energies*
- Transfer to national legislation and implementation of *Directive 2003/87/EC on Greenhouse Gas Emission Allowance Trading*
- Development and implementation of *National Plan for the Concession of Gas Emission Allowance*.

### ***Second: Start of a new water management policy***

- Updating of the ***National Plan for Water Management*** according to the new water consumption culture.
- Implementation of items related to water purification, monitoring of water quality, state control on water, reforestation and guarantee of water supply.
- Accurate transfer to national legislation of Framework Directive on Water.
- Further development of Framework Directive on Water in quality aspects related to industrial activity.
- In-depth reform of institutions related to water management (*Confederaciones Hidrograficas*).

### ***Third: Implementation of IPPC Regulation in affected industries***

- Approval of regulation for the development of IPPC Act.
- Support, dissemination and implementation of current legislation.
- Grant workers' participation in the implementation process.

### ***Fourth: Prevention of pollution derived from the use of dangerous chemicals***

- Development of a policy on chemical hazards oriented towards prevention and substitution of the most dangerous chemicals.
- Adoption of early measures to support the implementation of REACH regulation.
- Development and implementation of a Convention on POPs (Persistent Organic Pollutants) and outline of a National Policy on POPs.
- Development of a ***National Plan on Hazardous Wastes*** and implementation of the ***National Plan on PCBs***.
- Promotion of ***Waste Reduction Plan*** in those enterprises included in Act 10/98\*.



### ***Fifth: Preservation of Biodiversity***

- Support to sustainable development programs in national parks.
- Coordinated policies with regional government for prevention and elimination of forestal fires.
- Promotion of forestal certification.

### ***Sixth: Promotion and implementation EMAS (Environmental Management Systems)***

- Promotion of EMAS in government agencies.
- Development of EMAS and ISO 14001 systems.
- Development of purchase policies based on environmental criteria.
- Identification and promotion of enterprises that assume corporate social responsibility.

### ***Seventh: Workers' rights and participation in environmental activities***

- Enforcement of workers' information, participation and representation rights in workplace environmental issues.
- Trade union attendance in environmental participative bodies

### ***Eighth: Environmental watch and control***

- Backup of legal and coordination mechanisms for environmental supervision, inspection and control especially in industrial activity.
- Backup for the supervision, inspection and control of natural environment and state control on water, land and maritime resources.

An evaluation commission will monitor the development of the present

agreement. The Commission shall meet every semester or whenever the parties consider it necessary and cooperation agreements will be signed by the Ministry of Environment with both trade union confederations ***Union General de Trabajadores*** and ***Confederación Sindical de Comisiones Obreras***.

The agenda described in this agreement to favour a sustainable industrial structure depends in great extent on the participation of the social agents through tripartite discussion as stated in the joint ***Declaration on competitiveness, stable employment and social cohesion***» presented by the government, the trade unions and the industrial organizations. The Ministry of Environment will present to the social agents proposals for tripartite discussion that promote joint progress in the modification of industrial patterns.

# Kyoto Social Dialogue



# AGREEMENT REACHED UNDER THE SOCIAL DIALOGUE FRAMEWORK TO INSTITUTIONALIZE AND ORGANIZE THE SOCIAL DIALOGUE RELATED TO COMPLIANCE WITH THE KYOTO PROTOCOL

## I. Introduction

1. In the «Social Dialogue Declaration for 2004: competitiveness, stable employment, and social cohesion,» signed on July 8 by the Government, the business organizations, CEOE, and CEPYME, and the trade unions, UGT and CCOO,<sup>1</sup> the signatories declared their intent to jointly undertake the implementation of the commitments and the consequences that the Kyoto Protocol could have on production and employment.
2. Section 4 of article 14 of Law 1/2005 of March 9, which regulates greenhouse gas emissions trading, establishes the following:

Social Dialogue Tables shall be created to ensure the participation of trade union and business organizations in the drafting and monitoring of the National Allocation Plan as it affects competitiveness, employment stability and social cohesion.

These Tables shall be created no later than six months after this Law enters into force. Their composition and bylaws shall be regulated by the Government after receipt of the report from the Commission for the Coordination of Climactic Change Policy.

3. Finally, the National Allocation Plan for Emissions Rights 2005-2007, approved by Royal Decree 1866/2004 of September 6, states that:

The social dialogue shall continue while the National Allocation Plan is in force so that all those affected can make known the observations and assessments that they consider appropriate.

<sup>1</sup> CEOE is the acronym for the Confederación Española de Organizaciones Empresariales or the Spanish Confederation of Business Organisations. CEPYME stands for the Confederación Española de Pequeñas y Medianas Empresas or the Spanish Confederation of Small and Medium Sized Business. UGT stands for the Union General de Trabajadores or the General Workers Union. CC OO stands for Comisiones Obreras or the Workers Commissions.

In addition, it indicates that:

- Dialogue Tables shall be created at the general level and for each sector of activity in order to analyse any potentially adverse social affects, in particular those related to employment. These Tables shall be comprised of representatives of the Administration and the relevant trade union and business organizations.
4. In order to implement the aforementioned requirements, the Government and the social representatives that signed the Social Dialogue Declaration decided to institutionalise and organize the promised social dialogue between the Administration and the social representatives in the framework of compliance with the Kyoto Protocol and in the terms and conditions established in this document.

## **II. SOCIAL DIALOGUE IS AN ESSENTIAL TOOL FOR COMPLIANCE WITH THE KYOTO PROTOCOL**

1. The government and the business and trade union organizations that signed this agreement are aware that the main environmental challenge that Spain faces in the forthcoming years is compliance with the commitment that it assumed upon ratification of the Kyoto Protocol.

They also are aware that compliance with this commitment will be a difficult challenge and recognise that to meet this challenge Spain must make a significant effort. However, they also recognize that it is necessary to do so because Spain is a country that is vulnerable to climactic change.

Moreover, they are aware that the effort that must be made to comply with the Kyoto Protocol must be made by society as a whole because, if not, it will not be possible to meet such an important challenge.

2. The Government and the social representatives desire strict compliance with the Kyoto Protocol while maintaining competitiveness, employment and social cohesion.

For the Government and the social representatives compliance with the Kyoto Protocol is not only a challenge but also an opportunity that must be seized in order to:

- advance toward a sustainable development model and productive system.
- improve the competitiveness of the Spanish economy by promoting innovation and enhancing its companies' technological capacity.
- improve the capacity of the Spanish economy to generate more and better employment and to raise the level of social cohesion.

3. In this context, the Government and social representatives believe that the tripartite social dialogue that has now been institutionalised should become an essential tool for compliance with the Kyoto Protocol.

Specifically, they believe that the social dialogue should serve to:

- create greater social sensitivity about the need to comply with the Kyoto Protocol.
- involve society in general and the affected productive sectors in particular in the compliance with the Kyoto Protocol.
- prevent, avoid or reduce the potentially adverse social affects that could result from compliance with the Kyoto Protocol, in particular those related to competitiveness and employment.
- In sum, reconcile Kyoto Protocol compliance with an improvement in the Spanish economy's competitiveness, employment and social cohesion.

### **III. THE CONTRIBUTION OF SOCIAL DIALOGUE TO COMPLIANCE WITH THE KYOTO PROTOCOL**

1. The tripartite social dialogue that is institutionalised in this agreement is tied to compliance with the Kyoto Protocol. For this reason it will be maintained throughout the duration of the National Allocation Plan, which is the first instrument that has been established to facilitate compliance with the Kyoto Protocol.

The purpose of this new form of social dialogue is to create a space in which the Administration and the social representatives can reflect on Kyoto Protocol compliance and more specifically on the impact compliance could have on competitiveness, employment and social cohesion.

Thus, the ultimate aim of this specific dialogue is to achieve a basic social consensus on Kyoto Protocol compliance.

Moreover, this social dialogue is expected to fulfil a preventative or anticipatory function. From this perspective the purpose of the social dialogue is to anticipate the problems that could stem from Kyoto Protocol compliance and determine the solutions that would be most appropriate for resolving these problems.

2. In this context, the parties to this agreement believe that the main function of this dialogue should be to identify accurately and in advance,
  - the adverse consequences that could result from Kyoto Protocol compliance, above all as they relate to competitiveness, employment and social cohesion.
  - the most efficient and least costly options for compliance with the Kyoto Protocol in terms of competitiveness, employment and social cohesion.
  - the opportunities that compliance with the Kyoto Protocol could offer the Spanish economy in general and the affected productive sectors in particular.

## **IV. ORGANIZATION OF THE SOCIAL DIALOGUE TIED TO COMPLIANCE WITH THE KYOTO PROTOCOL**

### **1. Channelling the social dialogue**

The Social Dialogue between the State Administration and the social representatives, which is now in progress, shall be channelled through the Social Dialogue Tables created in this Agreement.

Keeping in mind the commitments assumed, the following Social Dialogue Tables shall be created:

- On the one hand, an Interconfederal Table shall be created that will be an instrument for general dialogue between the State Administration and the social representatives. This Interconfederal Table shall be responsible for the general monitoring and assessment of compliance with the Kyoto Protocol and for the general organization and coordination of the social dialogue that develops between the Administration and the social representatives regarding compliance with the Kyoto Protocol.
- On the other hand, Sectoral Social Dialogue Tables shall be created that will be an instrument for the specific dialogue between the State Administration and the affected economic sectors. These Tables will be responsible for monitoring and assessing compliance with the Kyoto Protocol in each sector.

These social dialogue tables shall be created in the sectors affected by Directive 2003/87/EC on greenhouse gas emission trading and the national implementing law Royal Decree 5/2004 of August 27. Specifically, seven social dialogue tables shall be created in the following sectors:

1. Electricity
2. Refining of fuels
3. Steel and coke
4. Cement and lime
5. Glass and frits
6. Ceramics
7. Pulp, paper and cardboard

If it is considered appropriate, specific tables may be created under the aforementioned Tables for certain subsectors.

## **2. The Interconfederal Social Dialogue Table: composition and functions**

The State Administration, the business organizations CEOE and CEPYME and the trade unions UGT and CC OO, which signed the «Social Dialogue Declaration for 2004,» will be represented on the Interconfederal Table as follows:

The State Administration will be represented by the Economy and Treasury Ministry, the Industry, Tourism and Commerce Ministry, the Labour and Social Affairs Ministry and the Environment Ministry.



Other Ministries may attend the meetings of this Table when it is considered appropriate.

The business organizations CEOE and CEPYME and the trade unions UGT and CC OO will be represented by members of their respective confederations and by representatives of their respective Sectoral federations. Sectoral experts or other types of experts may attend the meetings of the Tables.

The Interconfederal Table basically will carry out the following functions:

- Channel the exchange of information, opinions and points of view between the Administration and the social representatives regarding Kyoto Protocol compliance.
- The Administration should provide this Table with information regarding any measures that it adopts or will adopt that will lead to the reduction of emissions as well as any horizontal measures that it may adopt to contribute to reduce emissions in those sectors not affected by the Directive.
- Carry out a general analysis and assessment of the impact of Kyoto Protocol compliance on the Spanish economy in terms of competitiveness, employment and social cohesion.
- In particular, carry out a general monitoring and assessment of the National Allocation Plan.
- Organize and coordinate the functioning of the Sectoral Social Dialogue Tables and channel their initiatives and recommendations.
- Create new sectoral tables, when it considers appropriate, in order to monitor emissions and emissions reduction measures in the sectors not affected by Directive 2003/87/EC, which establishes the greenhouse gas emissions trading rules.

### **3. The Sectoral Social Dialogue Tables: composition and functions**

The Sectoral Dialogue Tables will be comprised of the following representatives:

- On behalf of the State Administration: the Economy and Treasury Ministry, the Industry, Tourism and Commerce Ministry, the Labour and Social Affairs Ministry and the Environment Ministry

- On behalf of the social representatives: the trade union and business organizations representing the sectors that were included in the Social Dialogue Declaration for 2004 signed last July 8, as well as the corresponding Confederations present on the Interconfederal Table.

Specifically, the following business and trade union organizations will be represented on the different Sectoral Tables:

Number by order	Sectoral Table	Trade union organisations represented	Business organisations represented
1.	Electricity Sector	Mining & Metalurgy Federation (CC.OO). FIA-UGT	UNESA
2.	Refining of Fuels	FITEQA-CC.OO. FIA-UGT	AOP
3.	Steel and Coke	Mining & Metalurgy Federation (CC.OO). MCA-UGT	UNESID
4.	Cement and Lime	MCA-UGT FECOMA-CC.OO	OFICEMEN (cement) ANCADE (lime) CEPCO (gypsum) AINDEX (Magnesite)
5.	Glass and Frits	FIA-UGT. FECOMA-CC.OO FITEQA	GLASS OF SPAIN (glass) CONFEVID (glass) ANFFECC (frits)
6.	Ceramics	MCA-UGT. FECOMA-CC.OO	CEPCO ASCER
7.	Pulp, Paper and Cardboard	Communication and Transport Federation (CC.OO). FIA-UGT	ASPAPEL

The Sectoral Dialogue Tables basically will carry out the following functions:

- Identify and assess the scenario of Kyoto Protocol compliance in the corresponding sector.
- Anticipate, analyse and assess the negative social consequences that Kyoto Protocol compliance could have on the sector, in particular as they relate to competitiveness and employment, and look for corrective measures.
- Reconcile Kyoto Protocol compliance with an improvement in competitiveness and employment in the sector.
- Analyse the opportunities that the process could bring to the sector, and the recommendations to promote these opportunities.

### **3. Calendar for creating the Social Dialogue Tables**

The creation of the different Social Dialogue Tables will take place on the dates indicated below:

- The Interconfederal Table will be created on
- The Sectoral Tables will be created on the dates that accord with the Interconfederal Table.

# Reference Centre for Renewable Energies



# Reference Centre for Renewable Energies

## 1. Description of the centre

### 1.1. Objectives

The main objectives of the Reference Centre will be to promote renewable energies and to foment employment in the sector. Likewise it will be committed to studying and promoting energy saving and energy efficiency.

The centre will operate as an observatory to monitor the evolution of renewable energies, generate employment and the social and professional habilities necessary for its development.

This centre will make proposal to institutions, sectors and companies for a better development of renewable energies and professional qualification.

### 1.2. Activities

- Carry out research and studies related to renewable energies and employment and particularly the following Reports will be made:
  - Report on the evolution of employment in the renewable energies sector in Spain.
  - Comparative study of the evolution of employment in the renewable and conventional energies sector (oil, coal, natural gas, nuclear).
  - Report on the evolution of employment in renewable energies in Autonomous Communities
  - Comparative study of the evolution of employment in the renewable and conventional energies sector by Autonomous Communities
- One of the characteristics of the centre will be it international dimension in north-south cooperation for the development of renewable energies with special emphasis on the good use of the Clean Development Mechanism, as well as the collaboration with other institutions, scientific and technical bodies

or trade unions relevant to the matter. It will participate in studies and researches carried out by European and international trade union confederations and their associated bodies in the area of energy models, renewable energies, climate change and their relation to employment. The state of development of renewable energies in other countries will also be studied as well as the dissemination of the centre's own methodology.

- Advise on the possible adaptation processes derived from the change of energy model and particularly on the process of Social Dialogue and the negotiating committees provided for in the development of the National Plan of Allocation which include at least the sectors of electricity generation, oil refinery, iron and steel industry, cement and chalk, bricks and slates, ceramic and floor tiles, ceramic industry, glass, pulp, paper and cardboard.
- Advise on the drawing up of alternative development plans for regions with nuclear power stations whose closure or dismantling is to be decided (Example: Jose Cabrera Nuclear Power Station in Zorita) for the reindustrialization of areas in decline.
- Organise courses, seminars and conferences serving as a knowledgebase on the state of renewable energies and their relation to employment among numerous and various sectors.
- Carry out studies in order to detect educational and training needs for the expansion of renewable energies, which will cover regulated, professional and university education as well as occupational and lifelong training.
- Inform, communicate and publish. We will provide for the information spaces relevant to this matter in the news bulletin *Daphnia* and the website of ISTAS.
- Edit and co-edit pedagogical materials and other publications.
- Promote Renewable Energies
- Foster energy-saving and energy efficiency. Study related employment.

Most of these activities will be carried together with the collaborating bodies of the centre.

## 2. Collaborating bodies

The center will work with the collaborating bodies described below. The center will create a consultative organism with representatives from each of the collaborating bodies.

- **Government of Navarre**
- **Ministry of Environment**
- **Research Centre for Energy, Environment and Technology (CIEMAT):** Centre attached to the Ministry of Education and Science, an indepent public organism for excellence in energy and environment as well as many vanguard technologies and various fundamental research areas.
- **Renewable Energies Centre (CENER):** is a national techonology centre, with the structure of a not-for-profit foundation, dedicated to research, development and fostering of renewable energies in Spain, adapted to the rythm and needs of companies, public organisms and institutions, specialized in direct application research, development under contract and innovation.
- **Institute for Energy Diversification and Saving (IDAE):** It is a public, business-structured body, dependent on the Ministry of Industry, Tourism and Trade, through the General Secretariat for Energy. Its mission is to promote energy efficiency and the rational use of energy in Spain as well as support the diversification of sources of energy and promote renewable energies.
- **Observatory of Sustainability in Spain (OSE):** It is an independent organism, promoted by the Ministry of Environment, the Biodiversity Foundation (Fundación Biodiversidad) and the General Foundation of the University of Alcalá de Henares (Fundación General de la Universidad de Alcalá de Henares) created as the result of the commitment to reach a sustainable development model that takes into account the economic, territorial aspects of environmental improvement and social justice and that guarantees the conservation of our natural heritage and the improvement of the life quality of the citizens.
- **Training Centre for Renewable Energies (CENIFER)/ Foundation for Training in Renewable Energies (FFER):** Promoted by the local Government

of Navarre to give answers to the training needs that arise in the area of clean energies and to assure the existence on the labour market of technicians and specialists trained and retrained in this area.

- **Center for Environmental Resources of Navarre (CRAN):** Its objective is to bring the knowledge of Environment closer to the society of Navarre and try to make them take responsibility in the conservation and constant improvement, thus collaborating in constructing a more sustainable society from the economic, social and environmental point of view. It is a Foundation promoted by the Department of Environment, Regional Planning and Housing of the Government of Navarre and its public companies.
- **Association of Renewable Energy Power Producers (APPA):** A business body made up of more than two hundred companies to promote renewable energy sources from renewable energy sources in areas such as mini-hydraulic, eolic, solar and biomass.

### 3. Structure

For the centre to achieve its objectives it is necessary to have:

- **Technical staff (2):** One of the technicians should have economic and sociology background and the other should be specialized in renewable energies.
- **Administrative staff (1) part-time.** The location of the premises is still awaiting consultation. It could be in the building of the CENER or the CENIFER or the FOREM (Foundation for Training and Employment) of Comisiones Obreras.

Depending on the studies or researches to be carried out, the necessary experts could be hired for the activity and /or shared with the collaborating bodies in the case of joint studies.

The resources necessary to run the centre would come from the Government of Navarre and other state collaborating bodies and European programs.



## Improvement of mobility



## Cooperation Agreement between the Barcelona city council, the Zona Franca consortium and the Barcelona metropolitan transports for the improvement of the mobility in the Zona Franca Industrial Area

### **PARTIES**

Mr. JORDI HEREDERO BOHER, Managing Councillor of the Safety and Mobility Commission of the Barcelona City Council, as assisted in this act by the Representative Secretary of the Safety and Mobility Sector, Mrs. Montserrat Oriol y Bellot.

and

Mr. MANUEL ROYES VILA, Special Representative of the State to the Barcelona Zona Franca Consortium, according to the Royal Decree 1281/2004 of 21st May (Official Gazette number 124 of the 22nd).

and

Mr. CONSTANTÍ SERRALLONGA Y TINTORÉ, Chief Executive of Barcelona Metropolitan Transports (BMT).

Do hereby acknowledge one another's legal capacity to bind their respective entities and therefore:

### **DECLARE**

**First.-** The Zona Franca Consortium administrates the Zona Franca Industrial Area, one of the biggest industrial centres in southern Europe, with more than 250 companies with 43,429 employees and a high level of daily movements in the accesses to the industrial area and their internal mobility, which makes it necessary

to take actions with the view to improve the existing public and collective transport as well as to promote other alternative means of transport.

**Second.-** One of the objectives of the Barcelona City Council in the Municipal Framework Action Plan (PALMO 2004-2007), is for the Safety and Mobility Commission to promote the elaboration of a mobility plan for the Zona Franca industrial area.

**Third.-** Transportes de Barcelona, S.A. and Ferrocarril Metropolitano de Barcelona, S.A. are public ownership companies whose object is to provide public transport services to the city of Barcelona and its metropolitan area, as well as to elaborate studies and to counsel in all the areas related to transportation on their own or through any other form of cooperation with other societies or entities.

**Fourth.-** According to the principles and the objectives of the Law 9/2003 of 13th June on mobility, it is necessary to elaborate a specific mobility plan for the industrial areas, creating the figure of the Mobility Manager of the area.

**Fifth.-** The Barcelona City Council, the Zona Franca Consortium and the BMT are interested in collaborating in the planning and administration of the Zona Franca industrial area, creating an adequate working framework among the different agents involved.

With this aim, the institutions

## **AGREEMENTS**

### **First.- Object of the Agreement**

The object of the agreement is to improve mobility in the Zona Franca Industrial Area from a global and integrated point of view, by creating the figure and functions of the Mobility Manager as well as the Technical Committee for Mobility of the Industrial Area.

### **Second.- Technical Committee for Mobility**

In order to implement this agreement a Technical Committee for Mobility made up of one representative from each of the signatory institutions of the agreement

will be created. The objectives of the Technical Committee is to advise and define the activities to be carried out, to formulate proposals and to give expert consultancy in matters related to mobility in the industrial area.

The representative of the Free Zone Consortium in the Committee will be Mr. Ramon Molist Tarrés (Director of Operations of the Barcelona Free Zone Consortium), that of the Barcelona City Council will be Mr. Àngel López Rodríguez (Director of Mobility Services), and that of BMT will be Mr. Jacinto Soler Trillo (Director of Studies and Planning of the network).

Can also attend the meetings of the Technical Committee –depending on agreement– other technicians from the signatory entities, who are experts in the topics specific to this agreement.

### **Third.- Mobility Manager**

The position of a Mobility Manager will be created according to the definition of the Law on Mobility in industrial areas. The Mobility Manager will be appointed by the Free Zone Consortium and will supervise the Technical Committee as well as all the activities defined by the Technical Committee.

The functions of the Mobility Manager, in collaboration with the members of the Technical Committee will be to:

- Summon the Technical Committee for Mobility.
- Follow-up the evolution of internal mobility and access to the industrial area.
- Analyse the existing public transport offer (regular lines, itineraries, timetables, etc.) and propose measures that better adapt to the demand (changes of route, shuttles from the stations of the railway network and the most important bus stops, etc.)
- Make proposals to improve public highway as well as bus stops, in order to guarantee access to the workplace on foot.
- Analyse the company bus system services in the industrial area ( timetables, itineraries, use of the service) and propose actions in coordination with the companies to improve the management of the existing offer and give more service to all the workers.
- Study and propose measures to promote car-pooling.
- Propose actions that help regulate parking in the industrial area.
- Inform and disseminate the different alternatives of access to the industrial area as well as the changes that occur.
- Centralise the collection service of new demands and needs of workers for access to the industrial area.

- Jointly foster with the corresponding institutions the creation of a public transport voucher specific to the workers of the industrial area.
- Analyse the current situation and propose actions to improve access and internal mobility by bicycle in the industrial area.
- Do the necessary fieldworks for the constitution of the Mobility Council, in accordance with the Law on Mobility, considering that it is a consultative and participation organ of the different representative agents of organisms and bodies related to this matter and the citizens.

#### **Fourth.- Duration**

The period of collaboration will be three years, starting from the day of signature of this agreement.

#### **Fifth.- Resources and economic contributions**

The signatory bodies contribute to the Technical Mobility Committee with the corresponding representatives and technicians, without any kind of compensation.

#### **Sixth.- Confidentiality and ownership**

Any materials prepared in the performance of activities under this agreement belong to the Zona Franca Consortium, the City Council of Barcelona and the MTB. Any models and systematization of the data produced by any signatory body under this agreement will be at the disposal of the others who can use them and publish the results, always including the name of the author of the studies.

#### **Seventh.- The parties in this cooperation agreement can, jointly modify, extend, or leave it without any effect**

#### **Eighth.- Entry into force**

This agreement will come into effect on the day of signature.

In witness whereof, the parties have duly executed this cooperation agreement, receipted in triplicate in the city on the date mentioned above.

# Water management



## **II Unions' Symposium on water management: The reform of the Hydrographic Demarcations. Conclusions. For the regeneration of the Hydrographic Demarcations**

### **I. The need and the opportunity of a historic change**

The traditional model of water resources management in Spain is obsolete and fails to attend to the current demands of a modern society, although interest groups –strongly represented and established– strive to maintain them in order to continue profiting from public funding for their private interests.

Water management has been shaped this way, as a permanent cause of social, political, economic conflicts within a complex framework in which value clashes, culture, interests and uses are interwoven. This situation demands and has brought about a thorough change aimed at achieving a sustainable model of water use.

Therefore, we are at a moment of historic change at which a «new water culture» is taking shape and consolidating. It is not only the derogation of the National Hydrographic Plan to substitute the Ebro-Almanzora transfer. It is, above all, a thorough transformation of the forms, objectives and water management styles based on demand, saving, efficiency, adaptation of already existing infrastructures, protection of the environment, use of new and powerful technologies and the participation of citizens and their organizations.

This change which is significant and unavoidable with time, is nowadays subject to political will and the program of the ruling party. It is not, as should be desirable, the result of a political and social consensus on the matter. For this reason, it is likely to be changed depending on a change of the ruling party.

Comisiones Obreras is decidedly and actively engaged in this transformation process, contributing with efforts, initiatives and proposals in all the institutions where it is represented in quality of the most representative trade union. Giving today priority to:

- Participation in the processes towards the reform of the Water Law
- Participation in the implementation and monitoring of the Framework Directive on water policy
- Participation in all the existing consultative and management organs in the various territorial scopes of Public Administrations

## **II. The crisis of Hydrographic Demarcations**

Hydrographic Demarcations have been and are one of the mainstays on which the water resources management have historically been set up in Spain and, consequently, one of the main actors in the shaping and worsening of the problems as well as the solution to them.

They are currently immersed in a serious crisis as a consequence of:

- The distribution of competences between the State and the Autonomous Administrations, which have exclusive competence in matters relative to environment protection in their regions.
- The inadequacy to the new management models and the new water culture.
- The consequences of privatisation policies on human resources and materials in particular, the devastating effects on workers produced by the externalisation of their characteristic functions and public works with the consequence of labour demotivation.
- Maintenance and increase of technical assistance and reluctance to increase the Chapter I of the General Budget of the State, favouring the Chapter VI on investments.
- The existence of a new planning framework imposed by the Framework Directive on water policy that does not coincide with traditional planning.

Moreover, the Hydrographic Demarcations withstand the burden of tens of years of management, the fossilization of its organisms and the bad practices deeply rooted in a system that eludes any social control.

This situation throws a shadow of corruption, squander of resources and dishonest use revealed by:



- The privatisation of public works by several water management public companies
- The dubious but tolerated use of technical assistance very often unjustified and which are sources of corruption
- The unequal attitude towards users which is permanently lenient with some interest groups, something that contrasts with the utmost severity towards other less influential ones

In short, this crisis entails the loss of authority and legitimacy in the eyes of society as a whole and imposes upon the Hydrographic Demarcations the urgent need of transformation and regeneration, in order to adequately fulfill the purpose laws and citizens are demanding.

### **III. The regeneration of the Hydrographic Demarcations**

This regeneration of the Hydrographic Demarcations needs urgent measures designed to:

- Eliminate any shadow of bad management, the slightest hint of a likely corruption that could fall on their shoulders as a consequence of individual behaviour completely oblivious to common property with internal management audits.
- Reorientate its tasks and structures towards:
  - The integrated management of Hydraulic Public Dominion.
  - The preservation and maintenance of the great heritage of existing infrastructures.
  - The implementation of the necessary public works, always at the service of new water policy.

### **IV. The Public Water Management Companies**

The existence of Public Water management Companies, in their current shape, that is, like trading companies with entirely public capital to manage public works under the Private Law regime, must be questioned as an adequate instrument for the implementation and control of the public work, because:

- They conceal national debt.
- There are no objective reasons that prove they are more dynamic and efficient than the Hydrographic Demarcations, especially considering the new role public work would take on.
- They evade the constitutional and legal principles on public employment matters.
- They encroach upon the competences of the Hydrographic Demarcations.
- Their performances are not subject to serious controls.
- They eliminate or minimize the participation of users and citizens in water management, one of the mainstays of the Spanish Water Law.

In order to solve the above mentioned problems, it is necessary to organize these companies in a different way.

## **V. The reform of the Management of the Public Hydraulic Dominion**

The management of the Public Hydraulic Dominion should be characterized by being efficient, sustainable and democratic.

The transfer of these values to its administrative aspects demands:

- Transparency of actions and decisions taken by the different organisms that make up the Hydrographic Demarcations promoting them through policies and adequate means of communication and public information.
- Accurate and accesible documentation.
- Simplification of formalities and proceedings.

The efficiency in exerting powers conferred by the Water Law based on the principle as defined in article 50.4, that says: «the law does not give grounds to abuse the right to use water, waste or misuse», calls for the implementation of initiatives such as:

- The creation of an Area Manager or an Inspection and Surveillance Unit of the uses of water attached to the Water Commissariat in coordination with the River

Patrol, designed to control and audit existing grants and authorizations and to eradicate the abusive and dishonest uses of water that could exist.

- The creation of a new body of inspectors of the Uses of Water integrated in these new organic units for inspection of the uses of water. Civil servants with high technical and administrative qualifications to inform and examine records on dishonest uses of water.
- The integration of the River Patrol staff to the civil servants category in order to consider them, under the corresponding regulations as authority officials.
- In this respect the Law 53/2002 of 30th december, concerning Fiscal, Administrative and Social Order Measures, created the Scale of Environmental Officials of National Parks, attached to the Ministry of Environment for administration purposes, classified in the category C of those established in the article 25 of the law 30/1984 of 2nd August on Measures to reform Public Service.
- It is hoped that the in the future this same scale will be extended to the rest of the Public Dominion, that is, Hydraulic, Maritime and Land, with the aim that these workers are considered as civil servants and therefore have the presumption of certainty in the exercise of their functions.
- The coordination with other administrations with competences related to water management, in particular with the Public Prosecutor when the existence of a possible offence can be observed.

## **VI. Reform of the personnel policies**

The evolution of public employment in the Hydrographic Demarcations and the rest of organisms attached to the Ministry of Environment and related to the management of hydric resources, has been negative in terms of the number of public servants as well as in terms of their quality and qualification. Undoubtedly, this is one of the most damaging consequences of the privatisation policies led by the different Governments and is one of the main reasons of the unefficient water management system in Spain.

The problem is not only the lack of staff to carry out their functions; besides, there appear other effects that have a negative bearing on the workers as a whole: underemployment of very qualified professionals, the lack of definition of their

professional performance, the absence of professional and salary prospects. And all this implies an uncertain future resulting from the exercise by the Autonomous Communities of the traditional competences allocated to the Ministry of Environment.

The objectives set by the revision of the employment policies should permit to reach the sufficient quantitative and qualitative level of public servants to achieve an efficient public service and to dignify their working conditions with:

- The increase of the public job offer and the revision and updating of the positions for public servants and the non-statutory personnel.
- The homogenization of the working conditions.
- The modification of complementary wages.
- The reduction of technical assistances.
- The elaboration and implementation of a Training Program to prepare public servants for the development of the new water management policy.

All these measures should be followed by the appropriate training of public servants, using the general and the specific training of the department. Using interdepartmental training in specialties fundamental in the Ministry of Environment such as Hydrology and Surveillance of the Public Dominion.

## **VII. Reform of the policy on the safety of Hydraulic Public Work and in particular, the safety of dams and reservoirs**

It can be said that the current situation of the construction, opening and exploitation of an important number of hydraulic infrastructures, particularly dams and reservoirs, of public as well as private ownership, represents a risk for the populations, goods and the environment.

The main reasons are to be found in the existence of a complex and inadequate legal framework, and above all, this legal framework is not respected in terms of cutting down on staff attached to these functions in order to reduce costs, the recklessness and the proliferation of pools and other uncontrolled behaviours in

the hydraulic public dominion, and above all in the submission and subordination of surveillance services to other policies and interests.

It then becomes necessary to:

- Rationalize the current regulations with a Law on safety of dams and reservoirs.
- Resume dams inspections and include them in an independent organ of construction and management of infrastructures with resources and authority.

### **VIII. The democratization of water management: the reform of the model of participation**

The participation of the society in the management of the public thing is a constituent element of the political heritage of the European Union. In its legal system, the «interested parties» and the «public» are defined as the main actors of social participation. These figures are not properly provided for in the Water Law.

On the other hand, this norm includes a very participative structure for the «users» in the planning and management organs of the Hydrographic Demarcations, considering these as the owners of the grants to use Hydraulic Public Dominion. This formulation has allowed the seizure of social participation by the so-called traditional hydric community (some civil servants and technicians of the public service, construction companies, irrigators' associations, hydroelectric companies) well established and with great power.

The regeneration of the Basin Organisms calls for its democratization through:

- The maintenance of the existing participation infrastructures in the planning and the management of water within the Hydrographic Demarcations.
- The elimination of the existing imbalance between «users» according to the Spanish Water Law and the «interested parties» at all levels of social participation that includes the unions and more balanced regarding licensee users, who should not have more power, as it is up till now.

- Establish mechanisms and procedures of control on the government organs of the basins.
- To foment and channel the participation of the public.

Nowadays trade unions, and Comisiones Obreras in particular, in spite of being represented in all the consultative and social participation organs dependent on all the public administrations, are excluded from the Water Councils of the Hydrographic Demarcations, the national Water Council and the information and decision making processes in the context of the Water Framework Directive.

It is necessary to give solution to this inexplicable situation as a condition to start the reform and regeneration process of the hydrographic Demarcations and for this it is necessary to:

- Consider the most representative trade unions as interested parties or representatives of non-licensee users at all effects.
- Include trade unions in the Water Councils of the Hydrographic Demarcations.
- Include trade unions in the Water Council, Water Agencies and similar organisms, with full participation. We also demand the participation of the unions in case the participation is not limited to consultative organs and is also extended to specific management organs, for example the Catalonia Water Agency.

## **IX. The implementation of the Water Framework Directive in Spain**

The Water Framework Directive entails a new planning model of water management which thoroughly modifies the obsolete model provided for in the Water Law.

The Directive introduces fundamental elements to modernise water management in Spain, in tune with the new values, methods and instruments that make up the new water culture. For this reason, their strict implementation directed by and from the Hydrographic Demarcations, represents a serious challenge and also an opportunity to make a decisive step towards its regeneration and in its service to society.

The way this has been transferred to the Spanish legal system, by means of the Accompanying Law of the General Budget of the State of 2003, has not permitted the political and social debate necessary to assure its proper implementation:

- It does not resolve satisfactorily the existence of two planning contexts.
- It does not respect the demands for public participation.
- It does not overcome the difficulties derived from the distribution of competences among the different public administrations.
- It does not establish the means and resources for its development.

As a consequence, nowadays, it is being extremely inadequate, particularly in relation to the economic analysis, the evaluation of impacts and public participation. Nothing allows to think that the deadlines and the established calendars will be met.

The implementation of the Framework Directive calls for:

- A new reform of the Water Law and the appropriate development of regulations to transfer the requirements of the Directive efficiently to the Spanish legal system.
- The total responsibility of the Basin Organisms in its implementation.
- The allocation of the necessary human, material and budgetary resources.
- The collaboration with other public bodies, particularly universities and research institutions, to bring the knowledge and necessary techniques for the development of the Directive.

## **X. The exercise of competences of Autonomous Communities in the management of the Hydraulic Public Dominion**

At present, the Autonomous Communities, already exert their exclusive competences on the inland basins of their territorial scope. There is prospective revision of the present organization of the basin that will end up –after a process of segregations– with the cession and transfer of the competences to the autonomous bodies in matters of management of the Hydraulic Public Dominion.

The Autonomous Communities, in general, have chosen to set up organisms that integrate all the aspects relative to water management in their territorial scope. This is the case of the Catalonia Water Agency, which has set up a management model that offers important experiences that could be integrated to the management of the Hydrographic Demarcations.

Among these there are:

- Ways of participation and public plebiscite in decision making.
- Management policies normally more sustainable and less conflictive.
- The needs for extraordinary financing presented by these policies and their impact on prices, royalties and taxes.
- The unequal load of efforts on the different sectors of the society.



## Environmental Action in OPEL Spain



# ENVIRONMENTAL ACTION IN OPEL SPAIN INDUTRIAL PLANT OF FIGUERUELAS. ZARAGOZA

## I. Introduction

In March 2003 OPEL SPAIN requested the Integrated Environmental Authorization (AAI) from the Government of Aragón. OPEL, now GM, owns a factory located in Figueruelas and Pedrola, two municipalities of Zaragoza where 380.000 units of the CORSA and MERIVA models are currently being manufactured.

This factory was set up in 1982, with a staff of 8700 people and more than XXX auxiliary companies supply this factory with parts, products and services. This way, the automobile sector has become the major industry in Aragón, creating a worrying reliance of most of the productive base of Aragón on only one transnational company.

The activity is regulated by the Law 16/2002 on Integrated Prevention and Pollution Control in two aspects: the treatment of surfaces with electrolytic or chemical procedures and the use of organic solvents.

The Secretariat for Occupational Health and Environment of CCOO- Aragón had been monitoring the situation at OPEL with the head of Occupational Health and Environment of the Trade Union Branch of the company, either through the Environmental Statements EMAS or for specific matters.

In June 2004 we examined the documentation Opel Spain submitted to the Government of Aragón in order to apply for the Integrated Environmental Authorization (AAI). This enabled us to know better the production processes, the raw materials used, their emissions and wastes.

We looked for information from different sources in order to compare them with other Companies (brands) and for this we analyzed for example, the emissions declared in EPER by several automobile manufacturers. OPEL-GM- is a member of EMAS and this fact implies that the company is willing to make improvements and

that the environmental management implemented is in principle legally compliant with the regulations in force. We also could confirm that the company offers better environmental information than other companies of the sector.

We would like to point out that this paper does not evaluate the environmental and social impact of automobile use or the sustainability of the current transport system.

We drew up «Declarations and Considerations» on the process of AAI. We informed the Trade Union Branch and the Mining Metallurgical Federation of these declarations and asked them for some contributions. These declarations were discussed with the heads of the Trade Union Branch and submitted in due form and time to the Government of Aragón. CC.OO.-Aragón was the only one to denounce the procedure.

In the document we reminded them of the **«Informative principles of the integrated environmental authorization» (art. 4, point 1) of the Law 16/2002 on Prevention and Pollution Control:**

*«When granting the integrated environmental authorization the competent body should make sure that in the operation of the facilities:*

- *The necessary measures to prevent pollution particularly through the application of the best techniques available, are taken.*
- *The production of wastes is avoided and, if this is not posible, they are managed through evaluation processes, preferably by recycling or reusing. In case the application of the above procedures is neither feasible, for technical or economic reasons, the wastes should be eliminated in such a way as to avoid or minimize at the most its impact on the environment, in accordance with the regulation applicable in this matter.*
- *Energy, water, raw materials and other resources are used in an efficient way.*
- *The necessary measures to prevent serious accidents and limit their consequences on people's health and on the environment are adopted, in accordance with the regulation.*
- *The necessary measures to avoid any risk of pollution are established when the facilities are no more running and for the location to remain in a satisfactory state in accordance with the regulation applicable».*

## **What did our declarations say?**

We said that: «In the European Emissions Registry EPER it is clear that the factory of Opel Spain in Figueruelas has declared among other elements, emissions to the atmosphere of 7960 kg per year of benzene and 596.000 kg per year of VOC (Volatile Organic Components).

The factory of Opel Spain has to avoid or reduce in an important way the emissions of Volatiles Organic Components of its plant. The Opel Spain factory has to give up the use of some solvents such as benzene, since their use is risky for human health and the environment.

For this reason and according to the Royal Decree 117/2003 on the limitation of VOC emissions to the atmosphere, the BEST TECHNIQUES AVAILABLE should be applied.»

We were still very worried about the information appeared in the EPER: » benzene is a carcinogenic product considered in the Royal Decree 665/1997 of 12 May on the protection of workers against the risks related to exposure to carcinogenic agents at work, in its article 4 says: «As long as it is technically possible, the employer will particularly avoid the use of carcinogens in the workplace, substituting them by a substance, a preparation or procedure which in normal conditions of use is not dangerous or is dangerous in a lower degree for the health or safety of the workers.»

Subsequently, the Company and the Autonomous Administration explained that «benzene is neither used by General Motors Spain, nor is it generated in any of its processes, so the information has been corrected in the current notification submitted to EPER Spain relative to the emission data of 2002-2003.»

## **The most important issue: paints and solvents**

To get the AAI, the company communicates its intention to substitute the current method of «conventional» paint containing a high level of solvents (currently 82%) by a method of water paints with a percentage of organic solvents between 15% and 30%.

But from our part, after consulting the Technology Guides, we must consider that the Best Technique Available in the processes of industrial painting is POWDER PAINTS, since they offer a series of environmental, workplace safety (excluding those containing TGIC) and economic advantages. Since the powder layer is 100% made of solid elements, it does not contain solvents and can be used directly without diluting; this avoids workers being exposed to the solvent and the emissions of VOC associated to the conventional paints. Likewise, the transfer efficiency is up to 99% (fluid bed).

### **The use of PVC mastic sealant**

The Document «Communication of the Commission to the Council, the European Parliament and the Social and Economic Committee,» Community strategy on dioxins, furans and polychlorinated biphenyls (Brussels, 24.10.2001) -COM(2001) 593-, on pages 17 and 18, about the main sources of emission of dioxins says:

- *«The anthropogenic origin of the dioxins and furans is mainly due to combustion processes as a reaction of their precursors (aromatic hydrocarbon and chlorinated compounds in contact with oxygen), chemical and industrial processes (paper whitening or PVC manufacturing), or come from waste products such as mud from sewage treatment plant or dumping sites leaching (...) always appearing as by-products or impurities in several processes».*

The document Identifies a series of important sources of emission of dioxins and furans among which there are:

- *«Electric arc furnaces that could be the only industrial source with constant or increasing emissions to the atmosphere»(...) «In the future this tendency could be curbed with the application of adequate containment technologies»*
- *Secondary smelting furnaces for non-ferrous metals (aluminium, copper)*
- *Iron smelting*
- *Cement factories*

In this regard we would like to point out that in the OPEL factory (also in other brands) a PVC mastic sealant is applied to protect the undersides of the bodywork against corrosion. Once the useful life of the automobile has come to an end, this bodywork is wrecked, scrapped and melted again in an electric arc furnace. As we can see, scrap smeltings are one of the most important sources of dioxin. To avoid the emission of dioxins and furans in these furnaces, their contact with chlorinated products should be avoided. This involves studying the design of the product «from cradle to the grave» to prevent environmental damages in any of the phases of the lifecycle.

Therefore, we think that the substitution of this PVC mastic sealant by another non-chlorinated product is relevant.

*The Royal Decree 1383/2002 of 20 December on Automobile Management at the end of their useful life period, in the article 3 «Prevention Measures» says:*

- *«Automobile manufacturers or materials and equipments manufacturers are obliged to:*
- *Design the different elements of the automobiles so as to delimit the use of dangerous substances in their manufacture. To this effect it is forbidden to use lead, mercury, cadmium, and hexavalent chromium in the materials and components of the automobiles, with the exceptions, conditions, and dates included in the annex II.*
- *Design and manufacture automobiles and the elements that integrate them so as to facilitate dismantling, decontamination, reuse and appreciation of the automobiles at the end of their useful life period and to help integrate recycled materials and components to new models.»*

### **On industrial oils used in factories**

In this regard, nowadays, the Best Techniques Available allow important minimizations of toxicity and the amount of lubricants and coolants used.

## 2. Oils

### 2.1. Good practices

- Use biodegradable and low impact staple oils of vegetable or synthetic origin.
- Tend to use additives that need low levels of oxygen in their decomposition.
- Eliminate chlorinated hydrocarbons in the formulations.
- Reduce the aromatic level of aromatic component to under 8% due to their relation to skin cancer.
- Reduce the use of sodium nitrate as a corrosion inhibitor.
- Study and reduce the use of biocidal products.
- Eliminate the use of heavy metals (Zn,Cu) in the formulations
- Reduce the use of lubricants miscible in water.

### 2.2. Alternatives

In view of the environmental and health problems for workers in contact with alternative fluids, special attention is being paid to eliminate alternative fluids from the production processes or to replace their lubricant staple oils by biodegradable, non-toxic and environment friendly ones. Currently vegetable oils, polyglycol ethers and synthetic esters are included under the term «biodegradable» and polyol esters and phosphat ester under ester-dieters.

In fact dry machining or with these alternative fluids, has become a priority research subject in those EU countries where the cost of waste management increases the cost of manufacture processes with conventional fluids.

We proposed four alternatives to the use of conventional fluids: dry machining, minimum lubrication techniques (MQL), with biodegradable and non-toxic fluids, use of coolant gases and the COLDCUT process.»

Subsequently Tomas Montes, Head of Occupational Health of the CCOO Branch submitted to the Occupational Health Commission (Central Committee for Safety

and Health) of the company some of the questions we raised in the declarations on matters such as :

- The supposed benzene emissions.
- The use of PVC mastic sealant
- The paints and the VOC emission
- The use of chlorinated oils, etc.

He also requested information on these issues as well as safety specifications of some products and the EMAS Declaration of 2003.

At this same meeting Tomás Montes informed them on the willingness of CCOO to look for solutions and alternatives to the questions raised. Specifically he explained that we know alternatives to the substitution of chlorinated industrial oils by vegetable oils or other procedures. The company required us to specify that information and showed willingness to establish mutual collaboration.

We have requested the help of ISTAS for the technical aspects.

On November 25 2004, Tomás Montes requested from the company the safety specifications of the industrial oils as well as the use of these oils.

On January 17 2005 the Environment Coordinator of the company answered with a document listing the uses of these oils but did not give us the specifications requested, arguing that they are many and different, although on the other hand they requested from us information on the alternatives we mentioned: types, uses, characteristics, experiences, manufacturers and prices.

It is obvious that we have to arrange a meeting with the technicians and managers of OPEL, define what our collaboration is going to be and the specific actions to take.

At the beginning of February 2005 we received an answer to our arguments from the General Directorate for Environmental Quality of the Government of Aragón.



In the document the Administration included answers from the company, and information on benzene emissions. Apparently there has been a mistake and the Administration informed us that changing to powder paint is technically and economically unfeasible in this plant and that the change will be, as previously planned, to water paint. They also informed us that they will monitor other questions we raised.

On February 9 the Integrated Environmental Authorization of OPEL was published in the Official Gazette. It included some determining factors that will undoubtedly contribute to minimize pollutant emissions, preserve natural resources and people's health, although we know that things could be better.

So the procedure of the Integrated Environmental Authorization has served to know better the «inside» of the companies, and has enabled us to talk to its managers and technicians on equal terms, giving support to our delegates in order to make proposals that should have a bearing on the improvement of the working conditions and the minimization of pollution. This will continue.

On 28 April 2003 we held a meeting with technicians and managers of the company to deal with several issues that affect the environment in and outside the factory and therefore the health of the people who work there.

The meeting was very relaxed and, although no significant progress was made, we made a step to continue looking for specific alternatives to the mastic sealant and some of the oils currently used. Information from the company on different aspects is still pending and we handed them some basic information on more innocuous alternatives to some of the substances currently used.

The company has shown some interest in collaborating and studying the proposals of CC.OO and has recognized the necessity to make some improvements.

The generalized change of PVC mastic sealant by other non-chlorinated ones that do not generate toxic gases when –after being scrapped– the car ends up in a smelting furnace, can take up some time.

The Stockholm Convention on the elimination of POPs ratified by Spain obliges us to avoid the emission of dioxins. The best way to do this is in the origin. The introduction of vegetable oil lubricants and the use of regenerated base oils by GM-Opel in those areas where it is technically possible is another of our proposals that is still to be discussed.

## To definitely settle the issue of the benzene emissions

In this document we would like to suggest that this environmental action associated to the Integrated Environmental Authorization be extended to the rest of the automobile manufacture plants since we can consider the planning of improvements associated to this process as an indicator of the willingness of companies to continue improving.

### CHARTS:

- ADD EPER EMISSIONS OF GM AND OTHER COMPANIES
- ADD ECOBALANCE OF AN AUTOMOBILE
- ADD TABLE 25, PAGE 115 IHOBE White Book.

#### ECO-BALANCE OF AN AUTOMOBILE

Summary of the analysis of the life cycle of an average automobile that weighs 1.1 tons, consumes 10 litres on average of petrol each 100km and travels at 130,000 km during its useful life. Drawn up by the Umweltund Prognose Institut of Heidelberg in 1993.

	CONSUMPTION OF PRIMARY ENERGY	AIR POLLUTED BY TOXIC EMISSIONS	SOLID AND LIQUID WASTES
Extraction of raw materials	3,6 (TEHU)	422 (million m3)	25 (tons)
Transportation of raw materials	0.8	425	(13 litres of oil in the sea)
Manufacture	2.1	75	1.5 t.
Use	16,3	1.016	(546 grs. of heavy metals in aquifers)
Scrapping, recycling	0.14	102	0.2 t.
<b>TOTAL</b>	<b>22.9 TEHU</b>	<b>2,040 millions m3</b>	<b>Aprox. 27 tons</b>

THE ENERGY UNIT USED IS THE TEHU (TON OF EQUIVALENT UNIT OF COAL)  
1 EQUIVALENTE UNIT OF COAL= 29.308 JULES

## COATING TECHNIQUES WITH LOW SOLVENT CONTENT

### WATER BASED PAINTS

#### Description

- Water is the main solvent or the dispersant. The paint can be a solution, an emulsion or a colloidal solution..

#### Advantages

- Reduction of VOC emissions by 60-90%
- Less probability of ignition.
- Low level of toxicity
- The speed of the air is lower, thus saving capital and operation costs.

#### Limitations

- The limitations resistant to corrosion and the ones of bigger sizes.
- Some formulations (emulsions) must be protected against frost.
- Extreme cleanliness of the equipment
- It is not possible to paint with water on a humid surface

### PAINTS WITH HIGH LEVEL OF SOLIDS

#### Description

- Paints with a minimum of 40% solids content, normally solvent based but with less content than the conventional ones.

#### Advantages

- Reduction of VOC emissions by 40-80%.
- Less painting capacity to reach the required thickness.
- Saving between 20-30% of the energy costs of the furnace due to the reduction of solvents content in the formulations.

#### Limitations

- Due to viscosity sometimes it is necessary to heat the paint (a problem for the urthanes), they cannot be applied by immersion or showers and pumping and spraying require extra pressure that the majority of spray guns cannot withstand.

### POWDER PAINTS

#### Description

- Solvent-free powder paint. Fluid bed technique with application by immersion, spray coating or electroplating.

#### Advantages

- Reduction of the VOC emissions by 92-98%
- Elimination of the defects by fast drying and teardrop effect or of great thickness.
- Low inflammability risk
- High quality, resistance to impacts and corrosion.
- Low level of toxicity
- Due to recirculation, there is no need of chemical agents to clean the container there is no sludge generation, simpler technology.

#### Limitations

- More expensive raw material
- Problems with reutilisation and colour change
- Extreme cleanliness of lines and surface to assure adherence.
- Its application is still experimental since its has some problems of turning yellow and orange peel.
- On welded surfaces: retraction
- On porous surfaces: craters: (hot-dip galvanized steel, metallic surface with zinc.

## FURTHER READINGS

- «Libro blanco para la minimización de residuos y emisiones: pintado industrial», de IHOBE –Sociedad Pública de Gestión Ambiental, Gobierno Vasco.  
«White paper for the minimization of waste and emissions: industrial painting», by IHOBE-Public Company for Environmental Management, Basque Government.
- Guías Tecnológicas elaboradas por la Fundación Entorno.
  - 6.7.- Sector tratamiento de superficies con disolventes orgánicos.
  - 2.6.- Tratamiento electrolítico o químico de superficies en el sector de automoción.Technology guides elaborated by the Fundación Entorno
  - 6.7.- Sector treatment of surfaces with organic solvents
  - 2.7.- Electrolytic or chemical treatment in the automotive sector.
- Declaración Medioambiental de Opel España.
- Environmental Statement of Opel Spain.

## Substitution of carcinogens in workplaces



## Substitution of carcinogens

The need to control work- related carcinogens and mutagens is evident. Firstly it arises from the high exposure level shown in the information available; secondly from the serious damage they cause to health and thirdly from the very definition of a carcinogen defined as occupational, thus relative to labour and therefore unavoidable.

In this sense the Secretariat for Occupational Health of Madrid has expressed the need to intervene directly in the companies through a prevention and control campaign of workplace carcinogens that was launched in January 2002 and ended in the year 2003.

The study had two clearly defined general objectives: to promote the prevention and the control of carcinogens and mutagens in the companies located in the Madrid Region and foment the participation of workers and their representatives in the prevention and control of carcinogens.

Although there is no accurate estimate of the proportion of cancer attributable to workplace exposures, it is common to attribute between 4 and 6 per cent of the deaths by cancer to occupational exposures.

We have estimated that in Madrid between 700 and 800 workers die as a consequence of exposure to carcinogens in the workplace, although according to the most recent estimates the deaths related only to lung cancer of occupational origin would be 388 people. About 600.00 workers in Madrid are exposed to carcinogens in the workplace.

The legislation in force in our country offers enough instruments to avoid and /or to reduce exposure to occupational carcinogens and mutagens., especially the Royal Decree 665/1997 on Workers Protection against the Risks related to Exposure to Carcinogens and Mutagens at work, as well as the legislation in reference to various agents such as asbestos, chloride vinyl monomer, benzene or ionizing radiations.

The carcinogens found in the workplaces are easy to control since in most cases we can determine where, how and when they originate, therefore being easy to prevent.

The long period of latency conditions the fact that more than half of work-related cancers are diagnosed and treated when the worker has already retired; this makes it difficult to consider it an occupational disease.

It is important to remember that we cannot talk about the limit of exposure when talking about carcinogens: any amount of carcinogen in the air is risky for the worker. Since the only mutation in only one cell can in theory cause a malignant tumour, it is difficult to foretell a threshold dose, therefore it can be considered that there does not exist a safe level of exposure.

### **Lack of information**

We have found carcinogens and mutagens in ninety-three companies out of the 222 analysed in the study; this means that in almost one out of two companies visited one or various carcinogens have been spotted.

The number of carcinogens and mutagens found is very high. A total number of 217 carcinogens or mutagens have been found. This is an average of 2,2 carcinogens by company and 64 different carcinogens. This is a very important aspect to take into account when assessing the risk, since the interaction between the different carcinogens has the consequence in many cases to increase the possibility to have cancer.

The most frequent carcinogens and mutagens found are: trichloroethylene, lead chromate, potassium dichromate, methylene chloride and other hydrocarbons (petrol products, diesel fuel).

Carcinogens and mutagens are being used without any control, a clear failure to comply with the legislation in force, which means that many workers are exposed to many risk factors with serious consequences on their health.

As a starting point we have found that in a majority of cases (67.7 per cent) the prevention representatives did not know the existence in their companies of the carcinogens or mutagens that were identified after our action.

These facts clearly reflect the inadequate, not to say virtually null, information that the prevention representatives have about the chemicals used in the companies. We consider

this situation extremely serious and worrying if we take into account that the knowledge of this information is an important element, not only to be able to exert the power of participation but also and fundamentally to be able to initiate the prevention in the company.

The normal situation is to find a carcinogen that is not used in a closed system, where the number of workers exposed is limited, where generally, the ventilation used is a general one and where there does not even exist an indication of the risky areas or alert devices in case of emergency.

Obviously, if these conditions are not met, neither are the plans of action in case of accident or unexpected situations and the periodical or specific medical supervision, respected.

It is really worrying to confirm that in 81.6 per cent of cases, workers are not informed or trained on the risks caused by exposure to carcinogens, or that in 79,7 per cent of situations they neither receive training or information on the proper use of products, equipments and protection clothing, etc...

The sectors of activity where we found more companies with carcinogens or mutagens are: metallic products manufacture (30.6 per cent), teaching (10.2 per cent), graphic arts (9.2 per cent), plastics sector (9,2 per cent) and pharmaceutical laboratories (7,1 per cent).

We must point that in the graphic arts or teaching sectors we have found a different situation from the one we expected before.

In the graphic arts sector we have only identified carcinogens in 17 percent of the companies visited, due mainly to the fact that in the last years manufacturers have been introducing less toxic products (water paints, vegetable oil for cleaning that made many of the carcinogens used until recent years disappear.

In the teaching sector the opposite situation occurs. We have found carcinogens in 76.9 per cent of the educational institutions visited; this situation responds to the use of these noxious agents when doing laboratory teaching practices in universities as well as secondary schools. These practices are carried out without taking any prevention measure, neither by teachers nor students.



Depending on the size of the company, we have observed how the working conditions of workers exposed to carcinogens generally worsens as the size of the company reduces.

With the work carried out in all the companies, we have achieved important successes that enabled us to eliminate the risk on many occasions, and on others to at least control or improve specific aspects that help reduce workers exposure to carcinogens found in the workplaces.

We have substituted or eliminated one or several carcinogens from 19 out of the 98 companies where they were found, that is 19.4 per cent. The same percentage as companies where we have managed to improve usage conditions, reducing exposure by adopting one or various measures specified by the Royal Decree (usage of closed systems, limitation of number of workers, premises or improvement of the localized extractions...)

These improvements have reached 25.3 per cent of the carcinogens and mutagens localised.

In the 33,7 per cent of companies information and training conditions of workers exposed have obviously improved. In 16,3 per cent the possibility of substituting the product or changing the process is under consideration.

It is important to point out the great interest shown by the representatives of prevention during the whole study. To the good initial results we must add the intervention of the Labour Inspection Authority. After presenting the study in all the action scope of the Madrid Region, the head of the specialised safety and health unit of the Labour Inspection required us, specifically, the list of the companies where the carcinogens and mutagens were found so as to carry out inspections without consultation and requirements for the elimination of those products. Currently we have evidence that these inspections are being carried out and we have the commitment that at the end of the campaign we will be given a result of the actions.

## Training of the prevention representatives



## Training of prevention representatives for inspection of chemical risk in the cleaning sector

**\*The experience has been given an award by the European Agency of Occupational Health within the activities carried out during the European Week for Safety and Health at Work 2003**

During the year 2003 ISTAS and the Secretariat for Occupational Health and Environment of CCOO of Aragon carried out an experience of training and skills development for the prevention representatives of the cleaning companies in Zaragoza. The objective of the program was to facilitate the inspection of the prevention of risks caused by chemical substances and the application of the practical knowledge acquired during the course to influence the improvement of health and safety at work. Besides, it was also about developing activities of awareness-raising and information on the risks for health and the environment derived from the use of chemical substances.

There have been three working sessions with the participation of the representatives of all the companies and a consulting session or personal tuition. Each representative carried out initiatives in her own company. From a brief initial presentation by the monitors, the representatives used the information and experiences of their companies to analyse the risks to health and environment that could be caused by the cleaning products they used. The Group work allowed the representatives to know the practices and experiences in other companies brought by other participants or monitors. With this information they suggested the best alternative to their own situation and the possibilities of inspection.

## Sessions held

### TITLE

### CONTENTS

*Know what you use*

- Chemical risk. Risks to health of cleaning products.
- Prevention of occupational risks, regulation.
- Information on the chemical risk in the company: labels and safety specifications. How to get information.
- Workers right to information.

*Cleaning and the environment*

- Risks to the environment of cleaning products.
- Disinfection, processes, ingredients of the disinfectants products, selection criteria. Good disinfection practices.
- Difficulties to find information, how to overcome them.

*The endocrine disruptants (D.E.)*

- Presentation of the DE: a new toxic risk.
- Cleaning: processes, products, ingredients, selection criteria.
- Alternative products with low risk level and good cleaning practices.
- Working with labels and safety specifications of each company. Risks identification.

*It is possible to substitute*

- Selection criteria of cleaning products and disinfection.
- Workers right to make proposals to the company in order to prevent the toxic risk. Negotiation.

*Feedback session*

- Presentation of the experience of each company.
- Difficulties, barriers, needs.

*Feedback session*

- Information to the rest of workers, training needs and participation of the workers in the prevention of risks from dangerous substances.

## Results

The representatives learnt how to ask the company for information on the risks of dangerous substances. They got the labels and the safety specifications of the products they use and have learnt to analyse them. They know the risks to health and the environment of the products they use.

They submitted to their companies their proposals to replace the more dangerous products, including the less risky alternatives.

They know better the regulation on occupational risk prevention, as well as the rights and the tools that it gives them to prevent the risks to health caused by dangerous substances.

They have more information and training on the processes and cleaning products, their risks to health and the environment and good practices.

Finally, from the information and experience collected in this program, ISTAS has edited the «Guía para la eliminación de tóxicos del sector limpiezas» (Guide to eliminate toxic agents in the cleaning sector).

## Substitution of the perchloroethylene



## Substitution of the perchloroethylene

One of the basic working lines of the Environment Section of ISTAS is still the program of substitution of toxic products in companies. This year we have tried to develop this activity with the head of Occupational Health of the Metal Federation of Madrid, which facilitated contact with three companies of the industrial belt of Madrid, with which the Confederal Secretariat for Environment of CCOO had been working on the chemical risk.

In the three cases the companies use chlorinated solvents to clean metallic surfaces (trichloroethylene, perchloroethylene). The intervention was carried out with a first visit to the companies to know the reality, draw up a report with the substitution proposal; and a second visit to submit the proposal to the company.

The results of the intervention are materialised in the substitution of the perchloroethylene by another solvent of less toxicity proposed by Symatic and the minimization by cleaning the trichloroethylene (CESA). Because of its interest we analyzed the case of Symatic.

### Substitution process

Symatic is a company that manufactures hydraulic circuits tubes. For this they receive tubes of 6 m long, impregnated with protective oil and rests of filtering oils. From this material, the basic processes are:

- Cutting the tubes by sizes.
- Stamping. After cutting part of the tubes are shaped by stamping. Previous to the stamping process, these tubes are cleaned by introducing them in a PER bath.
- Shaping. Those tubes that do not go through the stamping process.

The final cleaning of the tubes is carried out through blowing to atomize the grease-remover.

As this procedure is worrying because of the obvious risks due to exposure to a product considered as carcinogenic and ecotoxic, the Prevention representative contacted the Secretariat for Occupational Health and Environment of the Federation to put the problem forward.

After information and previous contacts, the company was visited and a small meeting was held with the technician of Occupational Health of the company. The main objective of the visit was to know the items manufactured and the cleaning process. Since we were not allowed to access the production area, it is not possible to know directly how the cleaning process is carried out.

After the visit, a short report was drawn up proposing the different options to substitute the perchloroethylene.

In parallel with this, the company consulted one of its suppliers which offered them a non-chlorinated solvent based on the mixture of hydrocarbons with a low toxicity.



## Substitution of carcinogens in the company CAF



## Action of the Union for the substitution of carcinogens

### **The representatives of the company CAF in Zaragoza succeeded in eliminating a carcinogenic adhesive**

The Prevention Representatives of CCOO of Construction and Railway Assistants (CAF) are really sensitive and worried about the presence of carcinogenic substances in the company. The interest is mainly due to the death of twenty-one colleagues, those on active service as well as the pre-retired, as a consequence of having carried out activities with exposure to asbestos, a carcinogenic material that has been used in the company for 25 years.

Apart from working in order to compensate the victims and their relatives, we think that it is important to avoid workers' exposure to any carcinogen. For this, we have reached a verbal agreement with the company not to do any work with first and second level carcinogenic substances. Besides, this agreement was adopted by the president of the Safety and Health Committee.

In November 2003, the workers requested CCOO to investigate the components of the adhesive (REDUX 609) used to join some aluminium grilles to steel sheets of the carriages doors.

From the information in the security data sheet, we have consulted several databases and the Occupational Health Consultancy of the Federation (Mining and Metallurgical), discovering the presence of a substance with possible carcinogenic effects, the diuron (CAS number: 330-54-1), along with epoxi resin with bisphenol-A (CAS number: 25068-38-6), a substance suspected to be endocrine disruptant.

Due to the presence of a carcinogenic substance in the work place, the activity was paralyzed and CCOO requested the company to immediately replace the adhesive used. An inspection was requested by the company but the inspector merely indicated the necessary protection measures and did not find any problems for the

activity to continue. Considering that the company promised not to use carcinogens, CCOO asked the Committee not to resume the activity.

The company agreed to the request and after few days replaced the carcinogenic adhesive by Scotch-Weld 7240 of the brand 3M.

The help of ISTAS was requested to analyse the substitute proposed. The report from ISTAS warned on the presence in the composition of the adhesive of a sensitizing and irritating substance that disrupts the endocrine system. In view of the risk for the health and the environment of the adhesives used in this type of joints, ISTAS suggested to replace them by mechanical joints. There were also several proposals of inspection to prevent the risks of dangerous chemical substances to be transferred to the company.

From now on, the plans of action on chemical risk consist of the continuous monitoring of the technical specifications of the products and the assessment of the risk in order to control their danger on the health and the environment, the substitution of any product or carcinogenic preparation we detect and the adoption of the necessary measures to reduce the risks of dangerous substances found in the company.

Among the main difficulties encountered for the elimination of the dangerous substances, are the difficulty to have access to information on dangerous chemical substances, the continuous changes in the classification of substances and the complications the change of production processes entails for the railway sector.

## ANNEXES



## Annex I

## Annex I

### Main working lines for the environment in 2006

#### Chemical risk

- Elaboration and presentation of several studies: occupational cancer, financial benefits of the application of the norm REACH, occupational mortality and morbidity in Spain.
- Dissemination of awareness-raising materials on the chemical risk among workers and trade unions officials through guides, videos, information campaigns.
- Updating of Ricstox, a database, in which, among other things, there are alternatives for the substitution of toxic products.
- Training and qualification of environment advisors

#### Energy and climate change

- Launch of the Centre for Renewable Energies and Employment
- Participation in the European Project of the CES on employment and climate change in Europe
- Participation in the Social Dialogue Negotiation Committees of the National Plan of Allocation and the Kyoto Protocol
- Attendance to the international forums on climate change (for ex. COP-12)
- Elaboration of the annual report of the greenhouse effect gas emissions in Spain.
- Elaboration of awareness-raising materials on climate change aimed at workers.
  - Effects of the climate change

- on tourism
- on agriculture
- on industrial sectors
- energy-saving guides for companies
- study of the effect of the Kyoto Protocol on Spanish small and medium enterprises

### **Union's action in companies and sectorial federations of Comisiones Obreras**

- Design and develop an observatory aimed at small and medium enterprises
- Drawing-up of a guide on the participation of workers in environment
- Participation in several forums related to environmental management and Social Corporate Responsibility.
- Support to the Advisory Network of the Foundation ISTAS and building up of an Advisory Network on Environment
- Organization of presential as well as on-line courses.

### **Transport**

- Follow-up of the state-scope Strategic Plan of Infrastructure and Transports.
- Participation in the European Day-without cars
- Campaign for the use of public transport to the work centres, through a guide and other divulgation materials.
- Follow-up of the Mobility Agreement of Catalonia
- Fostering of an Agreement for Mobility at state level as well as in all the Spanish autonomous communities.

## **Natural Environment**

- Elaboration of a report on forest fires 2006 in which forest fires are analysed and proposals are made to extinguish them.
- Elaboration of a guide of good practices to prevent forest fires
- Follow-up of the modification of the Law of Mountains the government is preparing
- Follow-up of the elaboration and the drafting of the Law of Natural Heritage and Biodiversity the government is preparing

## **Industrial Environment**

- Follow-up of the European Law for Prevention and Pollution Control (IPPC): situation of the registry, control of the Integrated Environment Authorizations
- Inclusion of the IPPC to the collective negotiation
- Attendance to courses and symposiums related to IPPC
- Participation to debate forums on IPPC
- Revision of the information available in Spain on wastes
- Distribution of a guide on solid waste management in companies
- Training courses on waste management aimed at workers
- Support to the cement industry in the management of wastes



## **Food security**

- Follow-up of the European and Spanish norm on transgenic matters
- Book publishing: Survival on a habitable planet and Science and Technology for a sustainable society

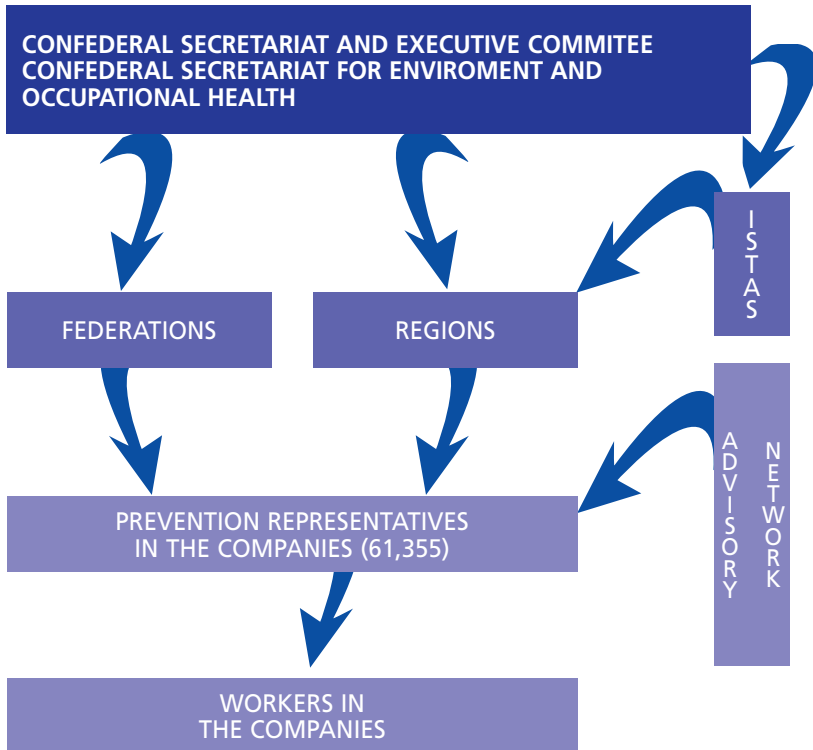
## **Water**

- Advice on the new Hydrographic Plan in Murcia and Almería
- Analysis of the protocols to face up to drought
- Application of the Water Framework Directive of the European Union in Spain
- Modification of the Water Law and the Hydrographic Demarcations
- Organization of the II Symposium on Water Management
- European Directive on Floods
- European Framework Directive on Marine Environment
- Fostering of the New Water Culture



## Annex II

## Annex II



- I. The Secretariat and the Executive Committee elected at the Congress are the day-to-day management organs of the union. The Confederational Secretariat for Environment and Occupational Health belongs to these organs. The Secretariat is structured in departments, one of which is the Confederational Department for Environment, which is the day-to-day management team of environmental issues.
- II. The Sector Federations are: Federation of Various Activities; Trade Union Federation of Public Administrations (FSAP); State Agrifood Federation;

State Federation for Shops, Hotel & Catering and Tourism (FECOTH); Federation for Communication and Transport; Federation for Construction, Wood and Related Areas (FECOMA); Teaching Federation (FE); Federation of Mining and Metallurgy (FM); State Federation for Pensioners and the Retired; Federation for Financial and Administrative Services (COMFIA); State Federation for Health (FES); State Federation for the Textile-Fur, Chemical and related Industries (FITEQA).

There are 17 Nationality-based and regional Unions, one for each autonomous community; more than 2 Unions in each autonomous city.

There is a Secretariat or Head of environment in each of the Federations and regional organisations. These officials are coordinated by the Confederal Secretariat and hold periodic meetings. This meeting of environment officials is to coordinate and debate on the environmental actions of the union in all its spheres.

The Prevention Representatives are elected by the workers in the companies. CCOO has 61,355 Prevention Representatives within the Spanish state.

- III. There is a technical and trade union structure to back up the officials and the Prevention Representatives in their actions, who are distributed all over the organisations of Comisiones Obreras. This structure is made up of an Advisory Network and ISTAS.

The Advisory Network is made up of teams of technical and trade union advisors, with knowledge and technical qualification in occupational health and environment, who dependent on the regional and federal organisations and advice the Prevention Representatives.

The Trade Union Institution for Work, Environment and Health (Instituto Sindical de Trabajo, Ambiente y Salud Laboral, ISTAS), made up of a large team of technical specialists with qualifications occupational health and environment, offers technical and trade union advice to the Confederal Executive Committee, the Federations and Regions and the Advisory Network.

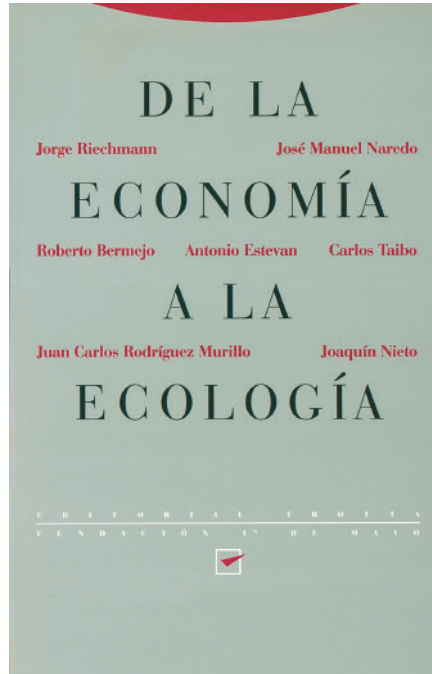


## Annex III



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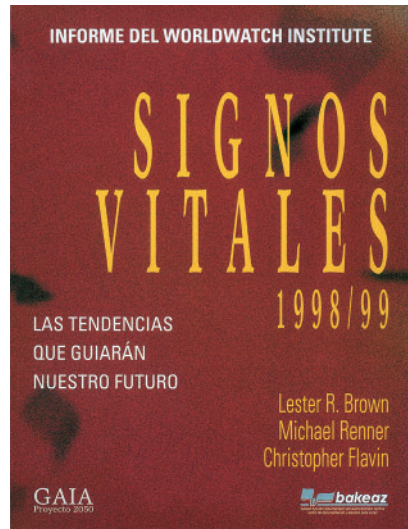
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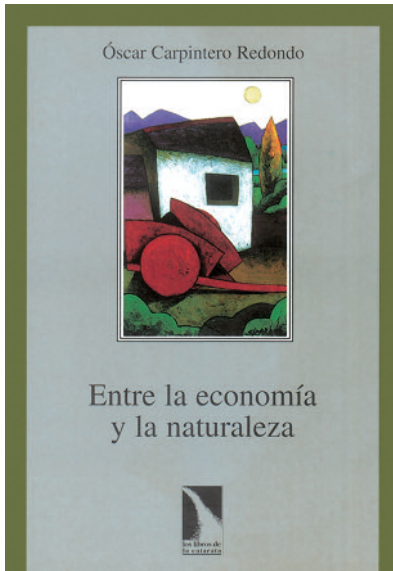


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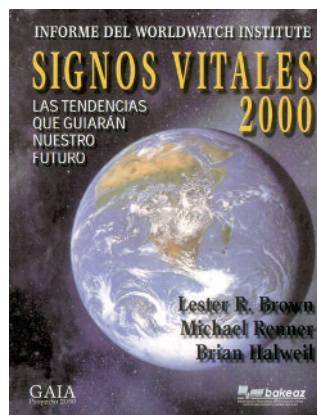


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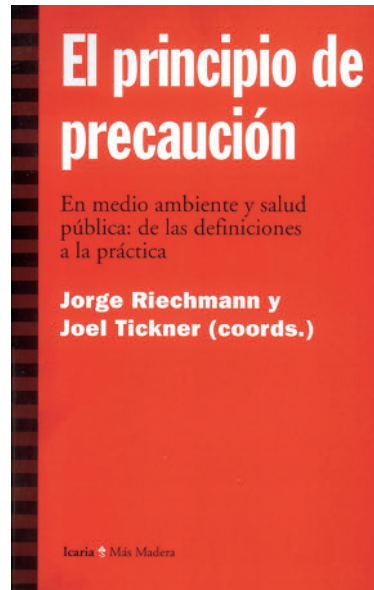


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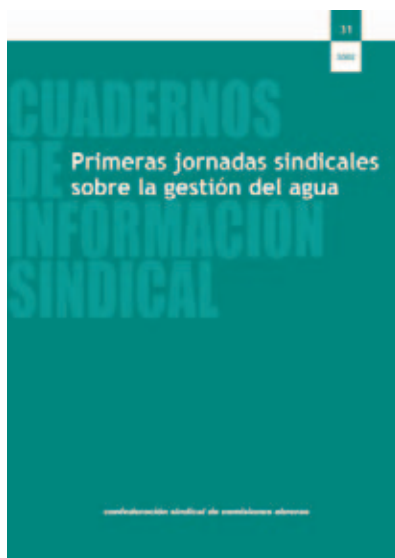


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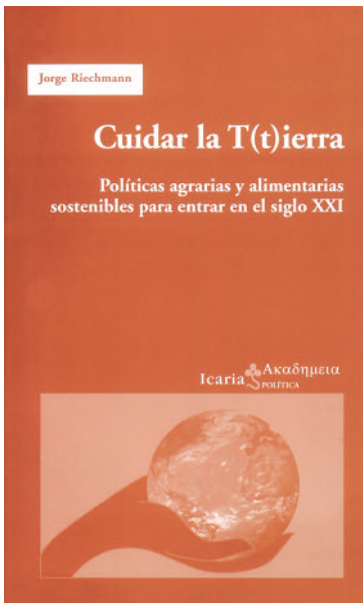
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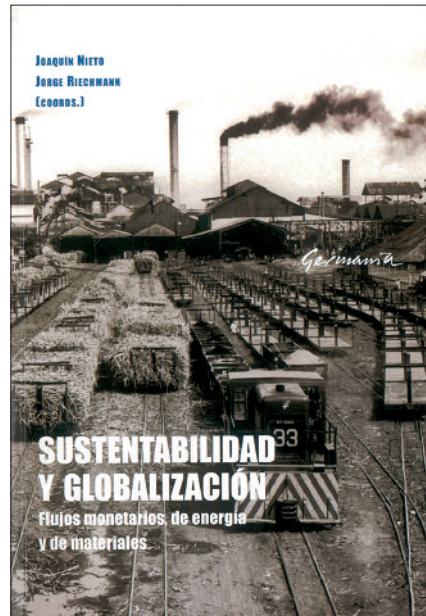
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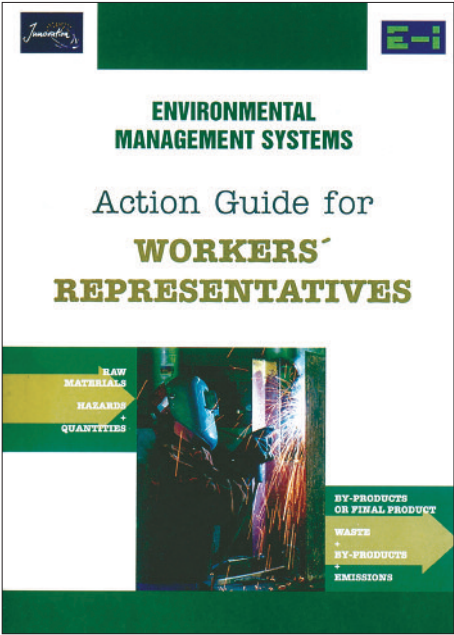
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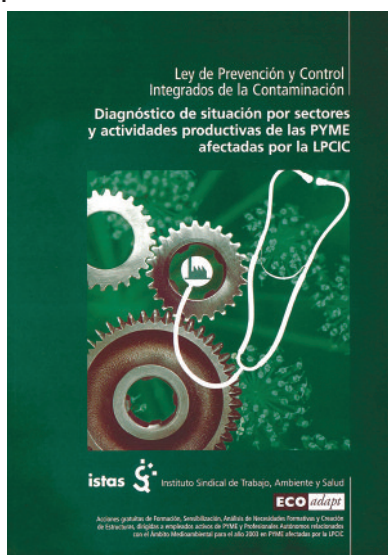


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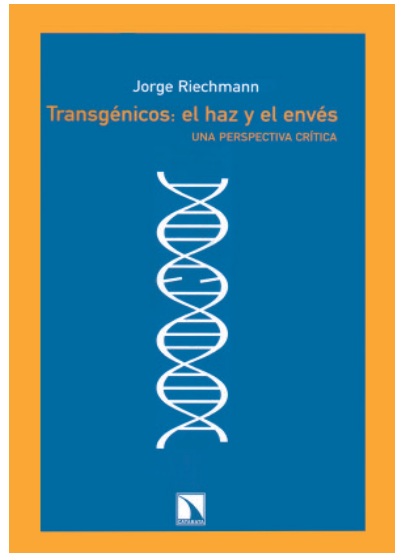
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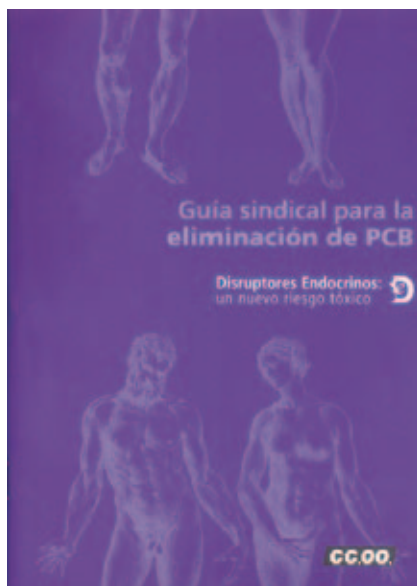


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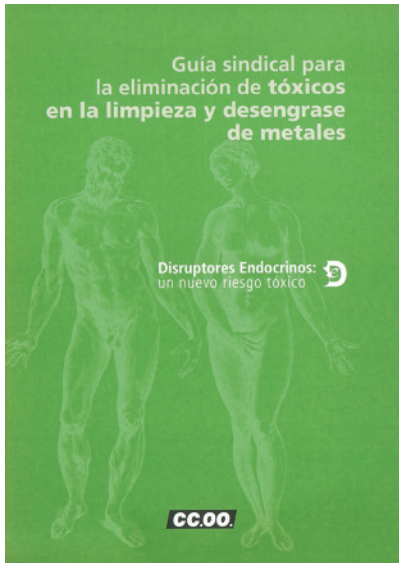
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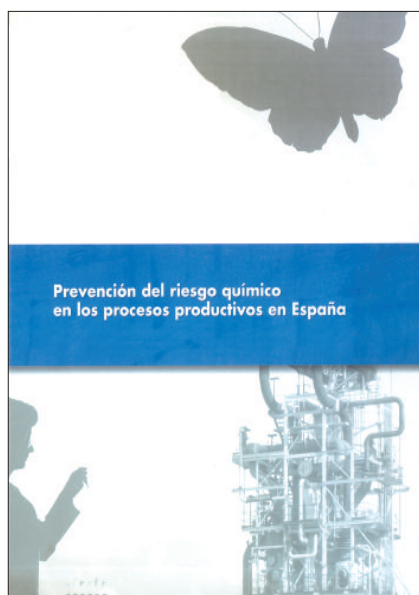
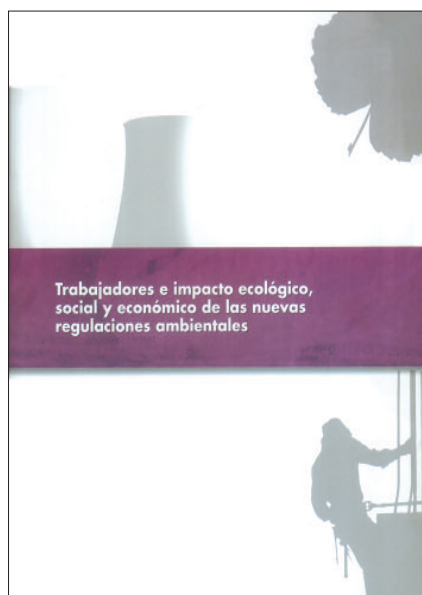
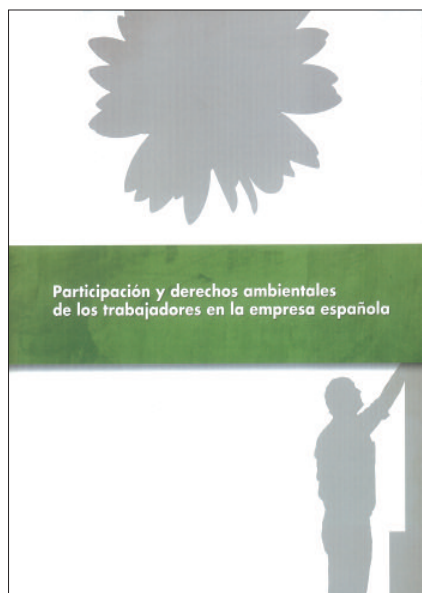














## PERIODICALS



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**DOSSIER**  
**CEMENTERAS**

**PLAN INDUSTRIAL AMBIENTAL**  
para la industria cementera española

**INCINERACIÓN DE RESIDUOS PELIGROSOS**  
CAMPAÑA «CONOCE LO QUE USAS»

10.000 actividades que «daphnia» ha llevado a cabo para sensibilizar a la ciudadanía sobre los peligros de la incineración de residuos peligrosos.

El primer artículo de este dossier trata sobre la actividad de la industria cementera en España. Se trata de una industria muy importante, que produce cemento para la construcción de edificios y obras de infraestructura. Sin embargo, la actividad de esta industria genera importantes impactos ambientales, especialmente a nivel de emisiones de gases de efecto invernadero y contaminación del aire. En este dossier se analiza la situación actual de la industria cementera en España, se presentan los principales problemas ambientales que genera y se proponen medidas para mejorar su sostenibilidad.

**Delitos ecológicos e industriales**

En este dossier se analizan los delitos ecológicos e industriales que se cometen en España. Se trata de delitos que afectan al medio ambiente y a la salud pública, y que son muy graves. En este dossier se presentan algunos ejemplos de estos delitos y se analizan las causas que los generan. También se proponen medidas para prevenir y sancionar estos delitos.

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**DOSSIER**  
**PROBLEMÁTICA AMBIENTAL DE LOS PCBs**

10.000 actividades que «daphnia» ha llevado a cabo para sensibilizar a la ciudadanía sobre los peligros de la contaminación por PCBs.

Los PCBs (bifenilos policlorados) son una clase de contaminantes orgánicos persistentes que se han utilizado ampliamente en la industria y en el hogar. Debido a su persistencia y a su capacidad para bioacumularse, los PCBs representan una gran amenaza para el medio ambiente y para la salud humana. En este dossier se analiza la problemática ambiental de los PCBs, se presentan los principales problemas que generan y se proponen medidas para reducir su uso y eliminarlos del medio ambiente.

**Proyecto de Ley de Envases y residuos de envases**

En este dossier se analiza el Proyecto de Ley de Envases y residuos de envases que se está tramitando en el Parlamento español. Se trata de una ley que tiene como objetivo regular el uso y la gestión de los envases y de sus residuos, con el fin de reducir su impacto ambiental y promover la economía circular. En este dossier se presentan los principales aspectos de la ley y se analizan sus implicaciones para la industria y para la ciudadanía.

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**DOSSIER**  
**RESIDUOS SÓLIDOS URBANOS**

10.000 actividades que «daphnia» ha llevado a cabo para sensibilizar a la ciudadanía sobre los peligros de la contaminación por residuos sólidos urbanos.

Los residuos sólidos urbanos (RSUs) son uno de los tipos de residuos más abundantes que se generan en España. Su gestión adecuada es fundamental para proteger el medio ambiente y la salud pública. En este dossier se analiza la problemática ambiental de los RSUs, se presentan los principales problemas que generan y se proponen medidas para mejorar su gestión.

**CASO PRÁCTICO**  
**Sustitución de pinturas al disolvente**

En este caso práctico se describe la sustitución de pinturas al disolvente por pinturas al agua en un edificio público. Se trata de una medida que tiene como objetivo reducir el uso de disolventes y, por lo tanto, reducir la contaminación por estos productos químicos. En este caso práctico se detallan los pasos que se siguieron para llevar a cabo esta sustitución y se presentan los resultados obtenidos.

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**DOSSIER**  
**SISTEMAS DE GESTIÓN MEDIOAMBIENTAL**  
Una encrucijada

10.000 actividades que «daphnia» ha llevado a cabo para sensibilizar a la ciudadanía sobre los peligros de la contaminación por sistemas de gestión medioambiental.

Los sistemas de gestión medioambiental (SGMA) son herramientas que permiten a las organizaciones gestionar sus impactos ambientales de manera sistemática y efectiva. Sin embargo, la implementación y el mantenimiento de estos sistemas puede ser un desafío. En este dossier se analiza la problemática ambiental de los SGMA, se presentan los principales problemas que generan y se proponen medidas para mejorar su implementación y su mantenimiento.

**CASO PRÁCTICO**  
**¿Derriba o desconstructión?**

En este caso práctico se describe la demolición de un edificio antiguo en un barrio histórico de Madrid. Se trata de un caso que plantea importantes cuestiones sobre la conservación del patrimonio cultural y sobre la gestión de los residuos generados durante la demolición. En este caso práctico se detallan los pasos que se siguieron para llevar a cabo la demolición y se presentan los resultados obtenidos.











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**DOSSIER**  
**Sistemas de Gestión Medioambiental**  
INVESTIGACIÓN Y APLICACIÓN

**CONTENIDO**

- 1. SISTEMAS DE GESTIÓN MEDIOAMBIENTAL: EL ROL DE LA RESPONSABILIDAD SOCIAL EN LA GESTIÓN DE LA CALIDAD AMBIENTAL Y LA PROTECCIÓN DEL MEDIO AMBIENTE
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**CASO PRÁCTICO**  
**Reducción de contaminación en una empresa de lavado de autos de lujo**

**Una campaña de sensibilización, clave para reducir el consumo de agua de la empresa**

Algunas empresas pueden tener problemas a la hora de reducir el consumo de agua en sus procesos de producción. Este artículo describe cómo una empresa de lavado de autos de lujo logró reducir su consumo de agua mediante una campaña de sensibilización de sus empleados. La campaña consistió en mostrar a los empleados la importancia de reducir el consumo de agua y en proporcionarles herramientas para hacerlo. Como resultado, la empresa logró reducir su consumo de agua en un 10%.

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**IDENTIFICACIÓN DE productos ecotoxicos EN LA EMPRESA**

**CONTENIDO**

- 1. IDENTIFICACIÓN DE PRODUCTOS ECOTOXICOS EN LA EMPRESA
- 2. IDENTIFICACIÓN DE PRODUCTOS ECOTOXICOS EN LA EMPRESA
- 3. IDENTIFICACIÓN DE PRODUCTOS ECOTOXICOS EN LA EMPRESA
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- 10. IDENTIFICACIÓN DE PRODUCTOS ECOTOXICOS EN LA EMPRESA

**CASO PRÁCTICO**  
**Eliminación de sustancias tóxicas en la fabricación de joyería**

Este artículo describe cómo una empresa de fabricación de joyería eliminó el uso de sustancias tóxicas en sus procesos de producción. La empresa decidió eliminar el uso de sustancias tóxicas porque quería reducir su impacto ambiental y mejorar la salud de sus empleados. Como resultado, la empresa logró eliminar el uso de sustancias tóxicas y mejorar su imagen pública.

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**DOSSIER**  
**ENERGÍAS RENOVABLES**

**CONTENIDO**

- 1. ENERGÍAS RENOVABLES: EL ROL DE LA RESPONSABILIDAD SOCIAL EN LA GESTIÓN DE LA CALIDAD AMBIENTAL Y LA PROTECCIÓN DEL MEDIO AMBIENTE
- 2. EL ROL DE LA RESPONSABILIDAD SOCIAL EN LA GESTIÓN DE LA CALIDAD AMBIENTAL Y LA PROTECCIÓN DEL MEDIO AMBIENTE
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**CASO PRÁCTICO**  
**Tras un acuerdo entre las ciudades y el Gobierno regional de la Comunidad de Madrid**

Este artículo describe cómo las ciudades de Madrid y el Gobierno regional de la Comunidad de Madrid acordaron un plan de acción para reducir la contaminación y mejorar la calidad del medio ambiente. El plan de acción incluye medidas para reducir el uso de vehículos privados, promover el uso de transporte público y mejorar la gestión de residuos. Como resultado, se espera que se reduzca la contaminación y se mejore la calidad del medio ambiente en Madrid.

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**DOSSIER**  
**TRANSPORTE DE MERCANCÍAS PELIGROSAS**

**CONTENIDO**

- 1. TRANSPORTE DE MERCANCÍAS PELIGROSAS: EL ROL DE LA RESPONSABILIDAD SOCIAL EN LA GESTIÓN DE LA CALIDAD AMBIENTAL Y LA PROTECCIÓN DEL MEDIO AMBIENTE
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**CASO PRÁCTICO**  
**Eliminar sustancias tóxicas en la fabricación de joyería**

Este artículo describe cómo una empresa de fabricación de joyería eliminó el uso de sustancias tóxicas en sus procesos de producción. La empresa decidió eliminar el uso de sustancias tóxicas porque quería reducir su impacto ambiental y mejorar la salud de sus empleados. Como resultado, la empresa logró eliminar el uso de sustancias tóxicas y mejorar su imagen pública.

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**DOSSIER**  
**PLAN HIDROLÓGICO NACIONAL**



**CONTENIDO**

- 1. Introducción
- 2. Marco legal
- 3. Objetivos
- 4. Planificación
- 5. Gestión
- 6. Financiación
- 7. Seguimiento
- 8. Conclusiones

**CASO PRÁCTICO**  
**Reducción de tóxicos en el textil**

En el sector textil se han producido grandes cambios en los últimos años, pasando de ser un sector muy contaminante a uno de los más limpios de la industria. Este cambio se debe a la aplicación de tecnologías de tratamiento de aguas residuales y a la reducción del uso de productos químicos.

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**DOSSIER**  
**SEGURIDAD AGROALIMENTARIA**  
*Otro modelo agrícola y ganadero*

**CONTENIDO**

- 1. Introducción
- 2. Marco legal
- 3. Objetivos
- 4. Planificación
- 5. Gestión
- 6. Financiación
- 7. Seguimiento
- 8. Conclusiones

**CASO PRÁCTICO**  
**Contaminación de ambientes urbanos de grandes industrias**

En los últimos años se ha observado un aumento de la contaminación en los ambientes urbanos de grandes industrias. Esto se debe a la aplicación de tecnologías de tratamiento de aguas residuales y a la reducción del uso de productos químicos.

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Revista Internacional sobre el medio ambiente y la contaminación y los problemas de desarrollo sostenible

**DOSSIER**  
**BIOMASA**  
**Una fuente de energía**



**CONTENIDO**

- 1. Introducción
- 2. Marco legal
- 3. Objetivos
- 4. Planificación
- 5. Gestión
- 6. Financiación
- 7. Seguimiento
- 8. Conclusiones

**CASO PRÁCTICO**  
**Destilación de productos tóxicos en una empresa de cerámica**

En una empresa de cerámica se ha observado un aumento de la contaminación en los ambientes urbanos de grandes industrias. Esto se debe a la aplicación de tecnologías de tratamiento de aguas residuales y a la reducción del uso de productos químicos.

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**DOSSIER**  
**TRANSPORTE AL CENTRO DE TRABAJO**



**CONTENIDO**

- 1. Introducción
- 2. Marco legal
- 3. Objetivos
- 4. Planificación
- 5. Gestión
- 6. Financiación
- 7. Seguimiento
- 8. Conclusiones

**CASO PRÁCTICO**  
**Destilación de productos tóxicos en una empresa de cerámica**

En una empresa de cerámica se ha observado un aumento de la contaminación en los ambientes urbanos de grandes industrias. Esto se debe a la aplicación de tecnologías de tratamiento de aguas residuales y a la reducción del uso de productos químicos.

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**DOSSIER**

**PUESTA EN MARCHA DEL PROTOCOLO DE KIOTO**

**El Protocolo de Kyoto y su contexto.** El acuerdo mundial sobre el gas de efecto invernadero del 2005, conocido como el Protocolo de Kyoto, es el resultado de una serie de negociaciones que se iniciaron en 1992 con el Tratado de París. El Protocolo de Kyoto establece un marco de acción para reducir las emisiones de gases de efecto invernadero, con el fin de evitar el calentamiento global. El Protocolo de Kyoto es el primer acuerdo internacional que establece un objetivo cuantitativo para reducir las emisiones de gases de efecto invernadero. El Protocolo de Kyoto establece un objetivo cuantitativo para reducir las emisiones de gases de efecto invernadero. El Protocolo de Kyoto establece un objetivo cuantitativo para reducir las emisiones de gases de efecto invernadero.

**CASO PRÁCTICO**  
**Mejora ambiental del proceso de urbanización**

El proceso de urbanización es un proceso de transformación del territorio que implica la construcción de infraestructuras y la creación de nuevos espacios urbanos. El proceso de urbanización es un proceso de transformación del territorio que implica la construcción de infraestructuras y la creación de nuevos espacios urbanos. El proceso de urbanización es un proceso de transformación del territorio que implica la construcción de infraestructuras y la creación de nuevos espacios urbanos.

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**DOSSIER**

**ESPACIOS NATURALES PROTEGIDOS**

**La protección de los espacios naturales.** Los espacios naturales son aquellos que han sido designados como tales por las autoridades competentes. Los espacios naturales son aquellos que han sido designados como tales por las autoridades competentes. Los espacios naturales son aquellos que han sido designados como tales por las autoridades competentes.

**CASO PRÁCTICO**  
**Eliminación de tóxicos en el sector agrícola**

Desde el año 1990, la Unión Europea ha adoptado una serie de medidas para reducir el uso de pesticidas en el sector agrícola. Desde el año 1990, la Unión Europea ha adoptado una serie de medidas para reducir el uso de pesticidas en el sector agrícola. Desde el año 1990, la Unión Europea ha adoptado una serie de medidas para reducir el uso de pesticidas en el sector agrícola.

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**DOSSIER**

**Aplicando el PRINCIPIO DE PRECAUCIÓN**  
**Un proceso en seis etapas**

**El principio de precaución.** El principio de precaución es un principio que establece que, en caso de duda, se debe tomar medidas para evitar daños ambientales. El principio de precaución es un principio que establece que, en caso de duda, se debe tomar medidas para evitar daños ambientales. El principio de precaución es un principio que establece que, en caso de duda, se debe tomar medidas para evitar daños ambientales.

**CASO PRÁCTICO**  
**Sanitización del tratamiento de aguas residuales**

El tratamiento de aguas residuales es un proceso que implica la eliminación de los contaminantes presentes en las aguas residuales. El tratamiento de aguas residuales es un proceso que implica la eliminación de los contaminantes presentes en las aguas residuales. El tratamiento de aguas residuales es un proceso que implica la eliminación de los contaminantes presentes en las aguas residuales.

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**DOSSIER**

**El Cumbre Mundial DESARROLLO SOSTENIBLE**  
**La perspectiva sindical**

**La Cumbre Mundial sobre el Desarrollo Sostenible.** La Cumbre Mundial sobre el Desarrollo Sostenible es un evento que se celebró en Río de Janeiro en el año 2002. La Cumbre Mundial sobre el Desarrollo Sostenible es un evento que se celebró en Río de Janeiro en el año 2002. La Cumbre Mundial sobre el Desarrollo Sostenible es un evento que se celebró en Río de Janeiro en el año 2002.

**CASO PRÁCTICO**  
**Plan de movilidad alternativa en Vodafone**

El plan de movilidad alternativa de Vodafone es un plan que busca reducir el uso de vehículos privados y promover el uso de medios de transporte público. El plan de movilidad alternativa de Vodafone es un plan que busca reducir el uso de vehículos privados y promover el uso de medios de transporte público. El plan de movilidad alternativa de Vodafone es un plan que busca reducir el uso de vehículos privados y promover el uso de medios de transporte público.





