

# The managing of industrial wastes in Bulgaria

Assoc. Prof. Dr. Mitko Stoev

Dept. of Chemistry  
Faculty of Natural Sciences and Mathematics  
South-West University, Blagoevgrad, Bulgaria

## Agenda

- The managing of industrial waste
- The origins of Industrial wastes
- Treated Industrial wastes
- The national monitoring system
- Conclusions

# The managing of industrial wastes

- Ministry of Environment and Water

<http://www.moew.government.bg/>

- Agency for Environment performer

<http://nfp-bg.eionet.eu.int/ncsd/bul/index.html>

- Regional inspection of Environment and Water

- Municipality

## Ministry of Environment and Water

- Waste Management Act (Dated 18 September 2003, promulgated in State Gazette 86/2003, last amended SG 27.09.2005)

Ordinance 9 on the order and the formats on which information for **waste activities** is provided, as for the order for keeping **public register** of the issued permits, registration documents and of the closed facilities and operations (State Gazette **No**95/ 26.10.2004)

## Ministry of Environment and Water

- Regulation on the requirements for **treatment and transportation of industrial and hazardous waste** (adopted with Decree of the Council of Ministers No 53 from 1999; State Gazette No 29/1999)
- Ordinance No 3 on **waste classification** (SG 44/25.05.2004), transposing Commission Decision 2000/532/EC and its amendments

## Ministry of Environment and Water

- Ordinance on packaging and packaging waste (adopted with CM Decree 41/2004, promulgated in State Gazette 19/09.03.2004, amended 15.07.2005)
- Ordinance on the requirements for treatment and transportation of **waste from the titanium dioxide industry** (SG 39/12.05.2004)

## Ministry of Environment and Water

- Ordinance No 6 on the conditions and requirements for construction and operation of incineration-plants and co-incineration plants (SG 78/07.09.2004)
- Ordinance No 7 on the requirements for sites determined for placing of waste treatment facilities (SG 81/17.09.2004)
- Ordinance No 8 on the conditions and requirements for construction and operation of landfills and other facilities and installations for waste disposal and recovery (SG 83/24.09.2004)

## Ministry of Environment and Water

- Ordinance No 9 on the procedure and formats , used to submit information on waste activities, as well as the procedure for keeping a **public register of the issued permits, registration documents and the closed installations and activities** (SG 95/26.10.2004)
- Ordinance on the requirements for **treatment of end of life vehicles** (adopted with CM Decree 311/ 17.11.2004, SG 104/26.11.2004)

## Ministry of Environment and Water

- Ordinance on the requirements for treatment and transportation of **waste oils and waste oil products** (adopted with CM Decree №230/01.11.2005, published in State Gazette № 90/2005, in force since 01.01.2006), appealing Ordinance on the requirements for treatment and transportation of waste oils and waste oil products, adopted with CM Decree №131/13.07.2000)

## Ministry of Environment and Water

- Ordinance on the requirements for marketing of **electrical and electronic equipment** and treatment and transportation of waste electrical and electronic equipment (adopted with CM Decree on 30.03.2006)
- Implementation Program for Directive 2002/96/EC on waste electrical and electronic equipment and Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment

## Ministry of Environment and Water

- Ordinance on the requirements for making an inventory of **PCB containing equipment**, marking and cleaning as well as for treatment and transportation of PCB containing waste (adopted with CM Decree on 09.03.2006, promulgated in State Gazette 21/24.03.2006)

## Ministry of Environment and Water

- Ordinance on the requirements for marketing **batteries and accumulators** and for treatment and transportation of spent batteries and accumulators (adopted with CM Decree 144/05.07.2005, promulgated in State Gazette 58/15.07.2005)

## Agency of Environment performer

### ■ Monitoring and Environment

- Air monitoring
- Quality of air
- Emissions
- Water monitoring
- Soil monitoring
- Wastes
- Radiation

### ■ Labs

## Regional inspection of Environment and Water

### ■ Licenses

### ■ Controls

### ■ Fines

### ■ Attitudes to Environmental and Water projects

# Municipality

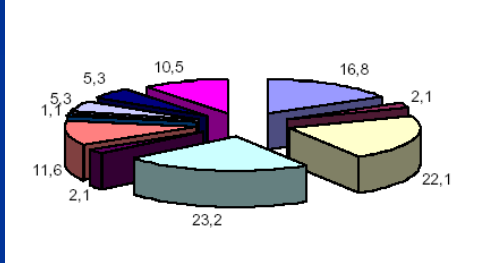
- Legislation activities
- Licenses for waste treatment

## The wastes in Bulgaria

Type of waste	Quantity	1997	1998	1999
Life wastes	Thous.tons	3 628	3 197	3 204
Building wastes	Thous.tons	805	1 023	1 343
Wastes from mining and manufacturing industry	Thous.tons	187 083	187 964	23 453 Without rocs
Industrial wastes from another industries	Thous.tons	43 586	30 473	1 843
Hazardous wastes	Thous.tons	1 100	548	706



## Economical Activities for Industrial Wastes



23.2 % - Metallurgy

22.1 % - Chemicals

16.8 % - Energy

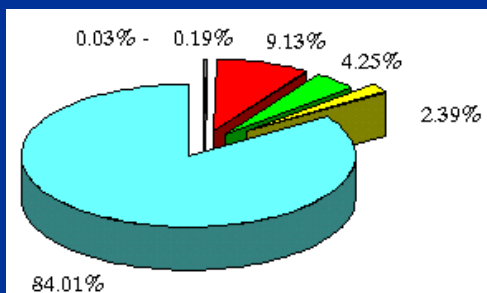
11.6 % - Glass & Ceramic

10.5 % - Another

5.3 % - Wood & Paper

5.3 % - Textile & Leather

## Treated industrial wastes in Bulgaria



84.01 % - Depot

9.13 % - Manufactured

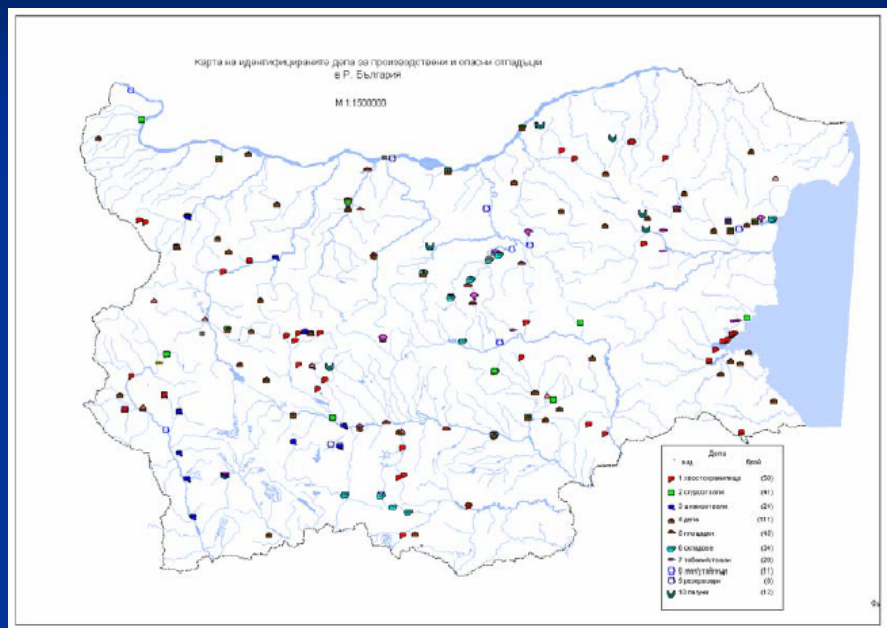
4.25 % - Utilized

2.39 % - Defused

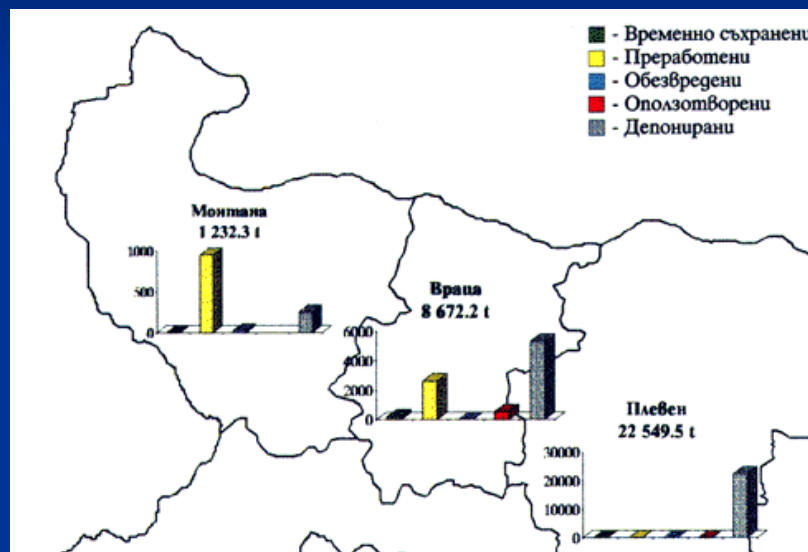
0.03 – 0.19 % -

Temporary deposited

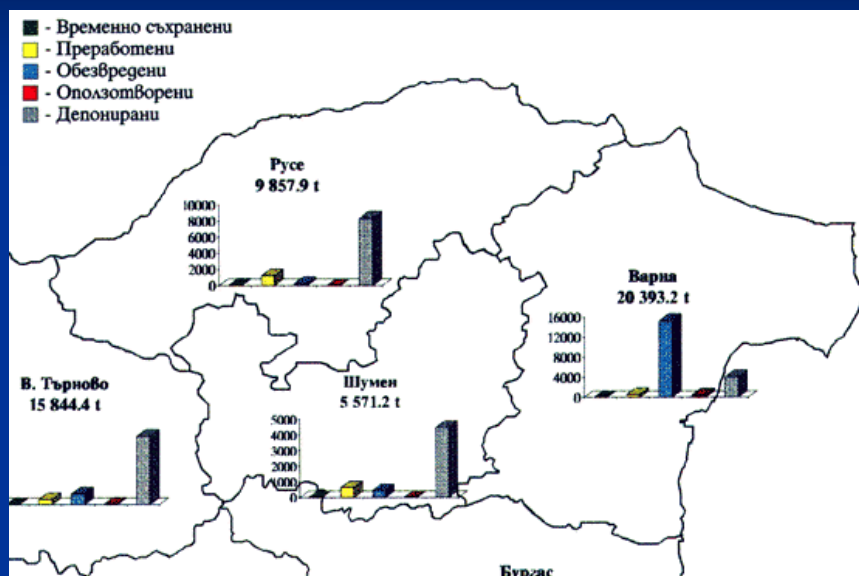
## Map of depots for Industrial and Hazardous Wastes



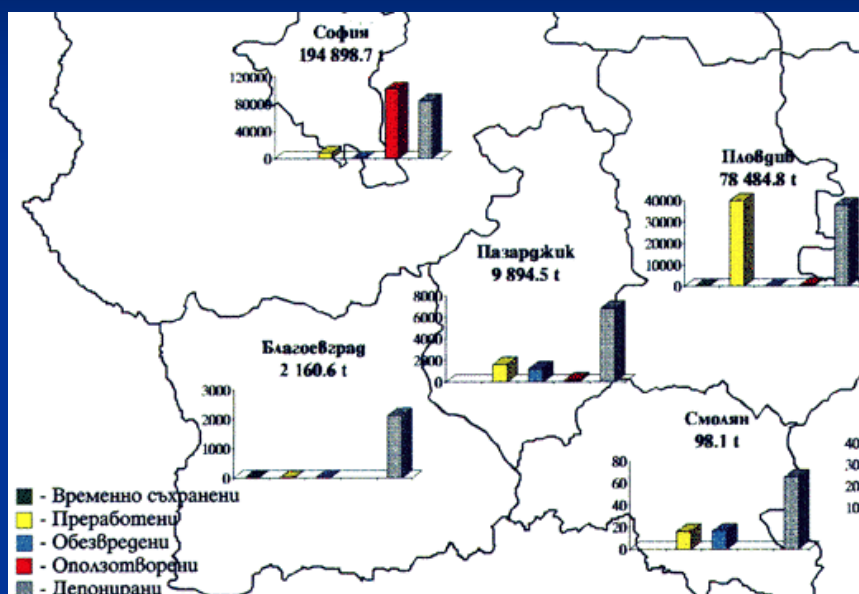
## Treated Industrial Wastes in Bulgaria



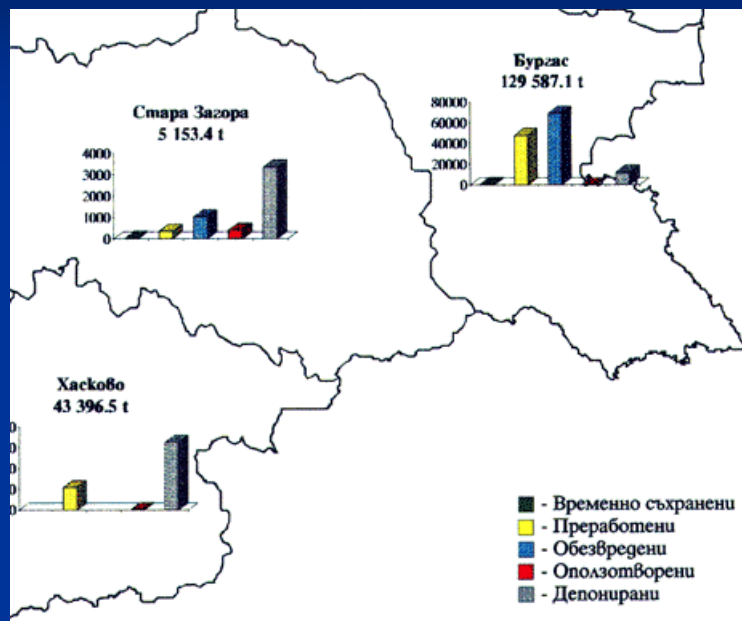
## Treated Industrial Wastes in Bulgaria



## Treated Industrial Wastes in Bulgaria



## Treated Industrial Wastes in Bulgaria



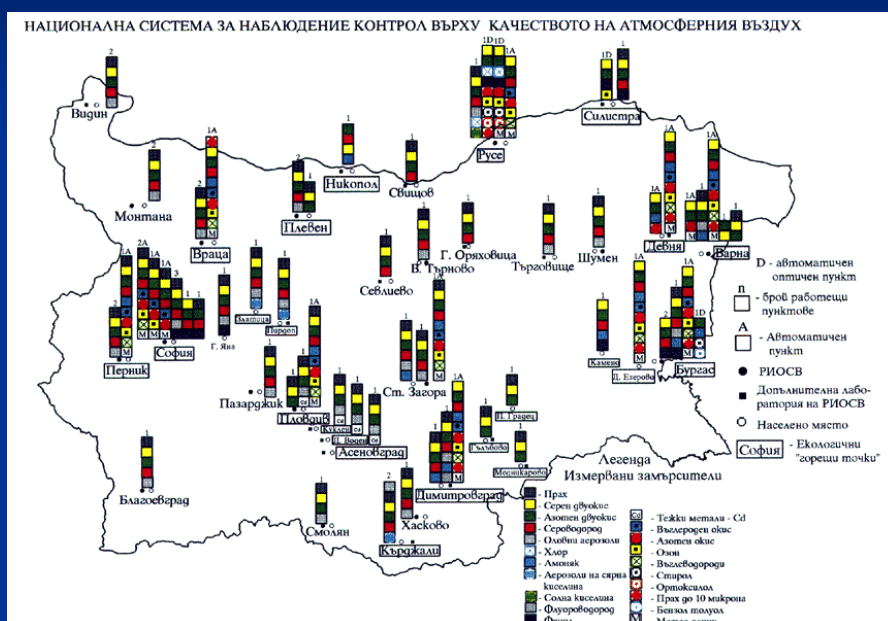
## The national program “Analysis of 65 depots for Industrial and Hazardous Wastes in Bulgaria”



# The Coal Power Station



## The national monitoring system and control “The quality of atmospheric air”



## Conclusions

- Removal of old technological industrial processes with low standards for industrial waste
- The new environmental vision for Life-cycle of materials
- Introduction of High-tech for industrial waste treatment
- The management of industrial waste
- Introduction of EU standards in Bulgaria for industrial waste